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## BRITISH NOTES (NEW SERIES).—

By JOSEPH YELLOLY WATSON, F.G.S., &c., &c.,  
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 Miners" (1846), "Records of Ancient Mining," "Cornish Notes" (1861), &c.  
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## CORNISH NOTES—NEW SERIES—NO. IV.

BY J. Y. WATSON, F.G.S., &c., &c.

I do not often read prospectuses, and when I do I seldom regard them; but travelling by rail one day from Tavistock to Plymouth my attention was called to that of the *West Cornwall Mining Company*, and in consequence I inquired a little about it when I got to the neighbourhood. There are some very respectable names in the prospectus; and as I am sure they would not willingly mislead the public, they will be obliged to me for calling attention to one or two rather extraordinary statements. In the first place, the company is formed to re-work, as I understand, the *East Wheal Busy Mine*, abandoned about four years ago; perhaps it was never vigorously nor properly worked at that time, and may still be a good speculation, but I am told the sets cost the present promoters some 3000l. or 4000l., and they ask the public 7000l. for them! They also say the mine is situated in the centre of one of the richest mineral districts in the county of Cornwall, being surrounded on every side by mines which have yielded enormous quantities of ore, and paid vast profits, and the following, among others, are mentioned as the great baits:—Great Consols, 1,000,000l. profit; United Mines, 500,000l.; Clifford, 100,000l.; Great Wheal Busy, great profits in former workings, now yielding immense returns, &c. Great Consols, United and Clifford are now the Clifford Consolidated Mines, and are two miles, I suppose, from East Wheal Busy, and in a different parish and run of ground. I might indeed, as well go into Cornwall and say I must be a rich man because my office is "surrounded" by Rothschilds, Barings, and other millionaires, as for this company to found their prospects of success on Clifford and Consols! East Wheal Busy is scarcely surrounded by rich mines in the way the words would seem to imply; the adjoining mine is Great Wheal Busy, that mine which, according to the prospectus, is now "yielding immense returns," and which was put to work a few years ago by a London company, who have to this time paid up 90,000l. in calls, and returned, I suppose, not less than 150,000l. worth of copper ores, without one penny profit. The mine has, in fact, swallowed up nearly a quarter of a million of money during the present working, and only just coming into profits, and yet the public is told East Wheal Busy can be fully opened out and proved for 15,000l. Perhaps the question is, what will the 15,000l. prove? As I said before, the mine may be, and I do not doubt it is, a fair speculation, but the public, who go into it with feelings excited by the inflated statements in the prospectus, will meet with disappointment if not loss. In this way I heard it spoken of by many respectable men in Cornwall, who consider, and rightly, that great injury is done to legitimate mining, and to the county at large, by the enormous premiums obtained from the public through such statements as those to which I have referred. When a mine has been proved productive, or is a paying concern, there will even then be wide differences of opinion as to its true value and prospects; but there is, in that case, a market test, and something to judge from beyond mere "tradition" to warrant the price.

A far better speculation, and one legitimately introduced, is *WHEAL LOVELL* (tin), near Helston, which Mr. Carne, of Falmouth, is bringing out. The mine made very large returns, and paid dividends, but was abandoned in 1850, in consequence of the low price of tin, then 39l. to 48l. per ton; and there is a run of 100 fathoms of unexplored ground eastward, below the 74, and much more to the western boundary. There is a 50-inch pumping-engine, with three boilers, now at work on the mine, a 17-inch steam-whim, a 24-inch steam-stamps, with 24 heads, extensive floors, machinery, erections, &c., for tin dressing on a large scale, the whole of which could not be put up for less than 5000l. to 10,000l., but was all purchased by Mr. Carne for 1610l.; for this he does not charge one penny profit or premium, and the shares have all, or nearly all, been taken on the spot. I refer to it as a contrast to the manner in which the *East Wheal Busy* is brought out.

**TAIL-PIECES.**—I was sorry to hear that the operations at the old *TAMAR* Mines, which I described in my former Notes, when they were making a profit of 3000l. per month, were being very much curtailed. The levels were driven under the bed of the river to the extent of the boundary, and as Mr. Coryton refused to grant the ground beyond, there was, I suppose, no alternative but to stop the deep levels, and work away the lead where it could be found.

**NEW SOUTH TAMAR.**—The lode has not yet been cut here, and seems to have been missed rather unaccountably. At present about 12 men are employed, and the agencies something like 3000l. a year.

**NEW CROW HILL,** near St. Austell.—The shaft was sunk here to the 70, but the ore dipped away east very fast, and the deep workings were suspended some time ago. The 55 fm. level has been driven east 60 fms., lode half the distance poor, and then 2 to 3 fms. wide, with good branches of lead, blende, and muddle; in the back of this level there are two stopes working. In 1862, 34 tons were sold, for 5122. 18s. 6d. This year, six months have produced 31 tons, yielding 5011. 19s. 6d. The 35 fm. level has been driven east 16 or 17 fms. The present deposits of lead are found in connection with a large slide, which underlies south, and dips very fast east, and the chief points are driving the 35 and 55 fm. level still farther east, to see whether the lode improves, and if it does, as expected, another shaft must be sunk eastward.

**SOUTH CARN BREA** is making large returns of tin; but the costs of working are very heavy, and the mine is very far from having realised the high expectations formed of it.

**WEST TREVELYAN** is poor; but the lode looks better in the bottom of the shaft, and may ere long make a change for the better in general prospects. **WHEAL TREMAYNE**, I understand, was looking better, and likely to pay well again.

**NEW WHEAL MARTHA.**—The pursuer has written me to say that, in his opinion, I have made a few errors in my "Notes" upon this mine, and which he "will endeavour to correct." In the first place he says, "the company was wound-up voluntarily." "The new company bought the mine, &c., for 5000 paid-up shares, and undertook to pay all liabilities." I stated in my remarks that it was a difficult matter to comprehend the exact mode of winding-up; and this version of the pursuer's does not in any way affect my statement. The "voluntary" winding-up was a sort of *volens volens* affair—"no compulsion, only you must," and it shows—as I wished to illustrate last week—that the Limited Liability Act, when the capital named is too small, is not calculated to benefit the first subscribers. The purchasers, also, having undertaken to pay all liabilities, does not differ from my statement; if, as I was informed by the pursuer himself, the only capital remaining was 1250l., or 5s. per share. In the second place, the run of the lode east is said to be 150 fms. from the 64, and over 300 fms. west. Again, I was told by an agent who had inspected the mine, that the lode in the upper levels was so hard, that where it had to be cut through, it had cost as much as 50l. per fathom. The pursuer informs me, however, that "20l. per fm. is the most ever given." Perhaps, since the new company have worked—for I stated that *fluor-spar* was taking the place of the *mundic* in depth, making the lode easier to work, than when in the upper levels it had cost as much as 50l. per fm. to cut entirely through it.

The returns for the two months represented by the last sale of ore, he says, not only met the working cost, but also all the merchants' bills, and left a small balance on the credit side. In my remarks I alluded to the whole costs under the head of "working costs," as I was told they were rather over 6000l. per month, including supplies, and the last sale of ores referred to realised 1210l. Lastly, "there is not now a penny owing at the mine, and a more satisfied or better conducted lot of men than we have is scarcely to be met with." I do not suppose the men would openly complain to the pursuer, but the very first thing I heard on approaching the mine was that the men had been very dissatisfied, because the pay-day having been on the Saturday week previous, they had not received their money till the Monday week following it. Under the old company I was told this was a very common occurrence, but it had caused some surprise with regard to the new company, and I mentioned it merely in contrast to the fact of the mine selling for 50,000l. in London. It will be seen from these remarks that my "errors" were not very important, and I only hope the present appearances of the mine may continue, and that they may "well repay the shareholders before long."

I have been told by one party interested in the company that all the 5000 shares of the new issue were not allotted originally, and that some of them had since been sold at a good premium to pay off the old liabilities. If

this were the case it is important that the shareholders should have an account of all unallotted shares, and the prices they have since realised. My statement that only 6s. per share, or 12500l., remained to the company out of the whole capital, and which I considered, and still consider, totally inadequate to bring the mine to a profitable state for the shareholders, was made, as I said before, upon the authority of the pursuer.

I have heard a great deal said, in consequence of my "Notes," about the reserves at *EAST CARADON*; I stated, however, that I gave the amount upon the authority of Capt. Seccombe, and that gentleman has since gone further into the matter for some friends, and adheres to the valuation of 100,000l., and also to the statement that more ore is being discovered than taken away. Others, again, I am told state that the reserves are not worth 50,000l., and the mine is being fast worked out. In reference to the ore, and the difficulty of any casual inspector putting the proper value upon it underground, I must say that when seen at surface the stuff that fetches 5l. per ton looks more like road-scraps than anything else, and is sent to pile with very little dressing, on account of the mixture of black ore, looking like occasional patches of soot, which would otherwise be washed away. Two years ago there were piles of grey and variegated ores, very rich, on the floors; but the lode from the 60 to the 70 seems to be in a transition state, and yellow copper ore is rather predominating, so that the agents think in the 80 there will be a better lode, and one more likely to continue rich in depth, than has been seen in any of the upper levels. Others will tell us, also, that the next level will be a blank, and among these different rumours, it appears to me to be the wisest plan to believe those whom we know and think we can trust.

Many people have enquired of me the best route to take in visiting the mines, and I strongly advise everyone interested in mining property to visit it occasionally, and they will learn more in half-an-hour's conversation with the agents, and in looking over the mines and underground plans, than from a month's correspondence. As a rule, agents are very straightforward and communicative to those who visit the mines, even though they may have been told—

If ye've a hole in a' yer coats,  
 I rede ye tent it;  
 A chief's amang ye takin' notes,  
 And faith he'll prent it.

Some, of course, are very cautious—especially those who receive orders from the secretaries in London (gentlemen who never job, or get the earliest information for their own benefit, of course) not to answer questions or give information except to parties having written orders, and even then it would be difficult to "fork" some of these men, pump them as you may, or get any real information from them, yet—

Whatever sceptic may enquire for,  
 For every why they have a wherefore.

Others discreetly, or perhaps advisedly, hold their tongues altogether, and tell you nothing; and you can only judge of what they really know or mean by a strict scrutiny of their countenances when you ask them a leading question. This class reminds me very forcibly of the Almoner in the "Ingoldsby Legends":—

The Almoner he speaks no word,  
 He intimates no doubt,  
 But puts his thumb up to his nose  
 And spreads his fingers out.

As a body, however, mining agents who attend to their duties, and do not become "bal" sellers and mere reporters for the market, are a most intelligent, straightforward class of men, and, as I said before, should visit them more frequently. For the Devon Consols and mines around them, the visitor should take his abode at the Bedford Hotel, Tavistock; but I would not advise anyone to go to Great Devon first—that mine must be seen last, or the others will be thought "flat, stale, and unprofitable." For the Caradon Mines, and the lead district of Trelawny, Mary Ann, &c., Webb's Hotel, Liskeard. The Callington Mines may be reached by a 10-mile ride from Plymouth, from whence also can be seen Bottle Hill and Wheal Sydney, and any mines on the Tamar. Going west to Redruth, go to Tabb's Hotel, and the principal mines around Carn Brea, &c., are within an easy drive. At Camborne, Tyack's Hotel is convenient for Dolcoath and surrounding mines—North Roskear, Seton, &c. A remarkably fine view is obtained from the top of Carn Camborne, and it will repay anyone for the trouble of a mile's walk from the town. In my last "Notes" I gave the following description of it; and, as it may be new to many of your present readers, I quote it here:—

I am writing this on the summit of Carn Camborne. Before me the blue sea, and the richest panoramic view in the world. By "richest," however, I do mean in beautiful and verdant scenery, such as a novelist would describe, for between the Bristol Channel and Carn Camborne I see nothing as far as the eye can reach from east to west but parched and barren ground, little mountains of rubbish, and tall, dark stacks of chimneys—I see, in fact, the richest mineral district in the world lying at my feet. I am looking upon mines from which scores of families have been enriched, and many beggars. From up those dark shafts men have come, as working miners, with "stones of ore" in their pockets, the shrewdness of fortune which have made their descendants in some cases the largest landowners in the county, and in others men of mark, of rank, and title. And now, as I look upon the apparently quiet scene, and watch the heavy beams of the engines work lazily up and down, thousands upon thousands of men are burrowing under ground like moles—some seeking an *ignis fatuus*, others working by the light of a farthing candle the "kennel lode," and as they work enriching others, if not themselves. People may rail at mining as they will (and as they may have cause, perhaps, at such "mining" as they sometimes hear of in London), but what would England be without it? It is not only in itself a grand pursuit, but there is something exciting and even fascinating in it. The "captain," when he makes a rich discovery, is like a successful general, and becomes at once a man of mark; and we, the adventurers, are like his victorious army, only we get better paid. Before I began moralising, I said that I was looking upon the richest mineral district in the world, and I am within the mark when I say that the group of mines before and around me have yielded mineral to the value of more than forty millions sterling.

Just at my feet are Stray Park and Camborne Vein, the latter worked without once stopping for 120 years, and yielding for copper in early times enormous returns, and more than 300,000l. in profit. Across the valley are the rich mines of West Seton, Wheal Seton, North Roskear, and the Croftys. The former is now one of the most productive copper mines in the county—and North Roskear in former times made a profit of 100,000l., and the Croftys 300,000l. Close to my right is Dolcoath (which has of itself, as Captain Charles Thomas informed me, sold tin and copper to the value of FIVE MILLIONS STERLING). Cook's Kitchen, which has returned almost as much; then Throcton and Carn Brea. At my back, and almost within a stone's throw, are Wheal Harriett and Condour; and of these the rich groups of Illogan and Redruth—South Farnes, Bassett, Buller, East Bassett, &c. In the immediate district before me the mines generally were remarkably rich for copper at shallow levels and down to a good depth, when the copper ore cut out and tin came in; and between the two epochs, as it were, the mines were poor. Some of them now, Stray Park for instance, are in the transition state. In Illogan and Redruth the mines mostly produced tin in the backs of the lodes and at shallow depths, and are rich for copper under tin. Captain Charles Thomas, the most experienced agent in the county, in a small work, entitled "Remarks on the Geology of Cornwall and Devon," calculates that the Camborne, Illogan, Redruth, and Gwennap Mines, all comprised within a run of six miles in length and two and a half in width, have produced copper ores to the value of nearly MILLIONS STERLING, and are still producing 500,000l. a year in copper, and about 120,000l. a year in tin.

For the St. Just and other mines—which I hope to visit and report upon before long—Penzance should be the head-quarters; and Marazion for Prosper United, Tolvaaden, West Trevelyan, &c.

## FOREIGN MINING AND METALLURGY.

The attention of Belgian firms has been much occupied of late with the deliveries of rails made by Belgian works to foreign railway companies. With reference to one of these deliveries, which has now reached the term of the guarantee, and by consequence the "definitive reception," the totals have been published of the quantities of rails which have been rejected after the test of two years, which they have undergone. Without entering into details on the subject, we may state that the cause of their being refused was not the quality of the iron; but experience would seem to show that rails manufactured entirely of puddled iron are preferable to those the upper part of which is formed of hammered iron. This is a point which it is usual to note for the benefit not only of forgers, but also of the engineers of companies charged with the preparation of specifications. Another question raised by refusal of rails in deliveries made abroad is the desirability of introducing into customs' legislation modifications securing the entry into Belgium free of duty of rails rejected by companies. It is not equitable, it is contended, that forgers should pay the duty with which the importation of old iron is burdened for rails unfit for service, and to be re-handled at their works. As these rails have to be replaced there is a re-exportation of iron equal to the quantity at first delivered; and, therefore—following the habitual principles of customs' legislation, which accord freedom from duties to materials serving for the production of objects of re-exportation—it is urged that it would be both politic and possible to exempt from taxes old rails imported into Belgium. There is scarcely any change to notice in the aspect of the Belgian iron market; little animation prevails in affairs, but late rates are maintained. A contract for 1100 tons of rails, with their accessories, has been concluded with the Spanish *Credito Mobiliario*. Several affairs in rails for exportation have also been talked of, but it has not been possible to arrive at an understanding as to the terms of the guarantee. Some important adjudications will shortly take place. On the one hand, the Great Luxembourg Railway Company received up to Wednesday (July 1) tenders for the delivery of 5000 tons of rails with switches; and, on the other, the Council of Administration of the Almoner and Salsbergen Railway will receive up to Aug. 1 offers for the delivery of about a similar quantity. Special tenders have been concluded by the administration of the Belgian State railways—first, with the Mechanical Nail Forge Company of Fontaine-l'Évêque, for the carriage of iron in bars, rolled and merchants' run plates, and iron wire, from Liège to Marchienne (at a price of 5s. 3d. per ton, that rate being fixed in conformity with the bases admitted for other contracts of the same kind in course of execution); secondly, with M. Brancart, of Mons, for the regular transport of 8 tons, at least, of coal per day from Jemappes, St. Ghislain, Bousu, and Thulin to Mons (at a uniform average price of 5s. 9d. per ton by rail, and by road with other tenders in course of execution); and, thirdly, with the Sars au Berleur Company, for the carriage of certain descriptions of minerals from Antwerp to Ans (at a price of 4s. per ton). On the other hand, the putting in vigour of a special tariff introduced by a ministerial decree of May 28, 1863, for the carriage of coal, rough pig, scoria, and minerals between the stations of the line from Mons to Manage and those of the Charleroi basin has involved the deter-

mination of the following treaties, which expired on Wednesday, July 1.—1. A treaty of the Châtelet-Blast-Furnace and Foundries Company, for the carriage of coal and rough pig between Châtelet and the offices of the line from Mons to Manage, and vice versa.—2. A treaty of M. de Dorlodot, of Acoz, for the carriage of coal, coke, and forge scoria, from the basin of the Centre to Châtelet.—3. A treaty of the Montigny-sur-Sambre Company for its carriage of rough pig from Couillet to Bois-du-Luc.—4. A treaty of M. Dupont, of Fayt, for his carriage of pig, minerals, rails, &c., from the basin of Charleroi to that of the Centre, and vice versa.—5. A treaty of the Châtelet-Blast-Furnace and Foundries for the carriage of coal and rough pig from the basin of the Centre to Châtelet, and vice versa.—6. A treaty of the Fosse Company for the carriage of coal from the basin of the Centre. In consequence of the approaching closing of the navigations, considerable deliveries of coal have taken place from Charleroi during the last few days, and will continue until the fall of the waters renders further operations impracticable. It is especially good qualities of coal which have borne the largest share in these deliveries, and certain producers of the basin have been obliged to postpone the execution of a portion of their orders. The fall in prices has been stopped; warehouses are being emptied, and a serious revival of business is anticipated in coal during the approaching autumn, unless the political horizon should be clouded over more than it is at present.

Advices from St. Dizier state that pig for refining is no longer the object of important transactions. The sale of some small, almost insignificant, lots—such as 10 tons or 25 tons—is noted in the neighbourhood at 51. 4s. per ton; but for important orders offers are made at 51. per ton, deliveries to be extended up to September. The price of 51. per ton has been admitted between contracting parties as the average course of 51. Rolled irons have not well established quotations, but prices remain at about the same point as before: iron from wood-produced pig making 91. to 91. 8s. per ton, with a scale of from 4s. to 8s. between the classes, according to the works; mixed irons made 81. 10s. to 81. 12s. per ton, with a scale of 8s. per class; and sheets, 91. 16l. to 101. for first-class, with a scale of 16s. to 11s. 6d. per ton among following categories. Beaten irons are sold at 101. to 101. 12s. per ton, and axes at 111. 4s. to 111. 6s. per ton, and are slightly in the small streams, on which the works with hammers are more particularly placed. Machine No. 20 still brings 91. 16s. per ton, when made from wood-produced pig; when from mixed pig, it is quoted 4s. to 8s. per ton lower. The Babcock forges have just put into activity again their works for the production of heavy irons; they have been stopped for some months in consequence of repairs required to be made in the turbine. The Donjeux rolling works are making arrangements for adding to their hydraulic motor a machine of 35 to 40 horse-power, which will enable the management to increase the fabrication of small irons and sheets. The forges of Stryling-Vendel have just concluded a contract for rails with the Northern France Railway Company. M. Labbé, manager of the Gorcey forges, has applied for authority to construct two or three blast-furnaces in the commune of Bone St. Martin, near Longwy. A Belgian writer, commenting on the present state of metallurgical affairs in France, recalls the protestations which greeted the conclusion of treaties of commerce, in 1861, between France and Belgium or England. The French ironmasters then declared that metallurgy was ruined for ever, the blast-furnaces were going to be extinguished, and the rolling-works stopped! Nevertheless there were persons even then who affirmed that those fears were exaggerated, and that a duty of 21. 16s. per ton of iron was more than sufficient to enable French works to struggle with advantage on the internal market against foreign products. These more far-seeing—or, perhaps, more honest—lookers-on admitted that some small establishments, badly situated, tooled in an old-fashioned manner, and wanting capital, could not resist foreign competition, and would disappear, as they did not possess the normal conditions of a good production; but the great works, they argued, would live and prosper, and even develop themselves still further. These predictions have been, in the main, realised. The Moselle district possesses extremely abundant and rich minerals; and it has Belgian or Sarrebruck coal at its command at very cheap rates, as there is a competition between the two varieties of black diamonds. This siderurgical group can, then, produce iron at almost the same rates as in Belgium, and this is found to be true, that the Moselle works have established depôts, and sell their irons at Paris, Lyons, and as far as Havre,—that is, even in the market on which English competition is the most lively. But still more. Not only have the French forges preserved their own internal market, but they carry on abroad a competition with the products of Belgium and England. In the southern cantons of Switzerland, for example, French irons are alone employed, not in consequence of their quality, but of their cheapness. In consequence of the reduced tariffs on the railways leading to Geneva, and the cheap transports effected on Lake Lemane, the French have created an extended sale zone, in which Belgian or English works no longer find it possible to deliver a ton of iron. It would be interesting to take the tariffs common among the wholesale merchants of Geneva or Lausanne, and to decompose prices into transport expenses, import duties, commissions, and profits, so as to be able to estimate with tolerable certainty the sale price of goods taken at the forges of French works. Such a calculation, it is affirmed, would show that the price with which French siderurgical establishments content themselves is very low, and does not vary materially from the quotations current at Belgian works. As it is not probable that the French works establish "tariffs of favour" to the advantage of Switzerland, one conclusion only can be drawn—that metallurgy under the stimulating régime of "unrestricted competition" has become stronger of late years in France. This conclusion will probably be supported with new proofs in a few days, as soon as the great railway companies have adjudged the important deliveries required for the establishment of the new lines forming their second réseau. These adjudications, of which one, comprising 50,000 tons, has already taken place, will give great activity to the rolling-works, and will exercise probably a favourable influence on the general tariff current for irons. The extensive metallurgical works of Hersemerange and Moulaine, in the Moselle, near the Belgian frontier, are about to be submitted to public competition. The sale is fixed for Wednesday, July 15.

The improvement noted of late in copper is, on the whole, confirmed. The Paris market has been quiet, but firm. English was last quoted 90l., Lake Superior 103l., and Chilean 87l. per ton. At Havre, the coppers of the southern seas are in favour, and some affairs have been under consideration at prices which would indicate a rise; other descriptions are also better sustained. At Hamburg, notwithstanding that there has been only a small demand, the article has fully supported former values, and Cologne has also displayed an upward tendency. Berlin has remained without change. As regards tin, the article has remained quiet at Amsterdam and Rotterdam, at 79½ d. On the Paris market the article has been sustained at preceding rates. At Hamburg little business has been done, buyers having waited for the result of the great Dutch sales, of which we shall give details next week. Berlin and Cologne have been firm, but buyers have not been very numerous. Transactions in lead have not been presented very actively at Paris; prices have remained without change, rough French being quoted at 221. and Spanish 221. 4s. per ton. At Marseilles lead in saumons, first fusion, has been quoted 191 4s., ditto, second fusion, 181. 16s.; ditto argentiferous, 191. 2s.; in shot, 211. 4s., and rolled and in pipes 211. 4s. per ton. The demand has not been active at Hamburg, and prices have been, to some extent, nominal. At Berlin and Cologne there has been some demand at previous prices. The situation of the zinc markets has not improved, the article being still much neglected. Paris has remained almost without business, and prices have been feeble; rough Silesian has been quoted 181. 12s. to 181. 14s., and rolled 221. to 221. 8s. per ton. Notwithstanding that no important transactions, prices have not risen at Hamburg. There has been little business at other "places" which have not reflected the general depression.

Among the undertakings in respect to which progress has been just reported is the Marseilles Gas-Lighting, Blast-Furnaces, and Foundries Company, with which enterprise another concern, the Portes and Sénéchas Mines, is also associated. The dividend for 1862 has been fixed at 16s. per share, of which 10s. had been previously paid. The remaining 6s. will be distributed on Oct. 1. Various resolutions were passed at the annual meeting, and the Council of Administration especially received authority to contract a loan of 120,000l. in obligations, "may possibly recur to the position of this undertaking." The Selsman Blast-Furnaces, Ironworks, and Foundries Company has just declared a dividend of 13s. per 181. share in respect of the exercise of 1862-3. The Asturian (Spain) Mining Company is now paying a dividend of 4s. per share in respect of the exercise of 1862. The Collieries and Mining Company of Lada, Villar, Santa Barbara, and Turon, in the Asturias, is endeavouring to raise a loan by means of 6 per cent. obligations, for improving its means of transport from the workings to the railway from Sams to the port of Gyon.

**ACCIDENTS IN THE SHROPSHIRE MINES.**—The fearful accidents which now and then burst upon the public mind no doubt create a great amount of excitement and pity, but yet few of the many accidents of a lighter nature which occur are ever given a second thought to. Numbers of poor fellows are yearly hurried into eternity without anyone, save perhaps the employers and the immediate friends of the deceased, being any the wiser. In no instance, perhaps, has this truth been better exemplified than in the mining field of Shropshire. During the last two years no less than 40 men and boys have fallen victims to their perilous occupations, in a district extending but a few miles south of the town of Wellington, and yet, perhaps, the inhabitants of this very district are not aware that the loss of life has been so great. This serious sacrifice of human life is more lamentable when it is known that at least one-half have perished either through the carelessness of some individual, or by neglecting those precautions which must surely have prevented the loss of such an extent has this carelessness been carried—to wit, the late fatal accident at Prior's Lee, where 12 poor fellows were killed, while at least four out of the twelve should have been saved, had not a breach of the rules taken place—that coroners' juries have at length been aroused to the duty incumbent upon them in making an example, in order, if possible, to put a stop to the recklessness now being carried on. An accident occurred the other day at Douington, a small mining village, about three miles from the town above alluded to, the termination of which it would be well for those engaged in mining operations to consider. By this accident one unfortunate man was killed, and another sustained such injuries as will in all probability end in death, solely through the recklessness or inexperience of the engine-stoker. The men, in company with others, had been working at the pit winding water, and about 12 o'clock descended the shaft, and the driver was told to stop at the "inset." Subsequently the regular engine man left his work, and went home, leaving the engine to be worked by the stoker, a young man about 20 years of age. The result is soon told. At one o'clock the bankswoman gave the signal that the men were coming up. The engine was started, and before it was again stopped two of the unfortunate men had been drawn over the pulley, one fearfully injured, and the other a mangled and hideous corpse. The chartermaster immediately rushed to the engine-house, where he found the stoker (Gethings) sitting upon the box, and hanging down his head, and in answer to the chartermaster's questions, he replied that "He went to the other end of the engine to put the 'damper' on, and could not get back in time to stop the engine." To such men, then, are entrusted the lives of the majority of the poor fellows who toil for their daily bread underground. Who shall be answerable? To do the jury who sat upon the body of the deceased justice, it may be stated that they have expressed pretty freely their opinion on the matter by the verdict which they have returned—one of "manslaughter" against the fireman (Gethings); and it is only to be hoped that the Lillishall Company, in whose field the accident occurred, will take care in future that the lives of their workmen are not trusted in such inexperienced hands.

**SUCCESSFUL SEARCH FOR COAL.**—Messrs. Greenwoods, Baron, and Tattersall, proprietors of the Bamford Colliery, Bamford, near Rochdale, are sinking another pit at Brimrod. The operations were commenced a little over twelve months ago, but in the meantime the work has been several times at a standstill, pending the erection of additional machinery. A considerable quantity of quicksand has been met with in the process of sinking, which has necessitated the introduction of a large quantity of cast-iron coring. With this exception the work has gone on smoothly from the commencement. Two thin seams of coal were discovered not far from the surface, not quite 2 ft. in thickness, one of which has been partially worked. A few days ago the 51st Mine was reached at a depth of about 160 yards from the surface. The seam is 8 ft. thick, and is of capital quality. It is expected that there are three other seams also, but the seam now reached is about 40 ft. thick. It is about 1/4 a yard in thickness, and the Feather Edge Mine, about 1/4 a yard thick. It is not, however, intended to work the latter at present. The colliery is excellently situated as respects the finding a market for the coal; it being within a short distance of Rochdale, Middleton, Blue Pits, Heywood, &c.



## Original Correspondence.

## ECONOMY IN MOTIVE POWER.

SIR,—To treat upon steam-power in anything like a satisfactory manner, even admitting it to be possible to do so, would involve such a laborious task that few will be disposed to undertake it. It cannot be disputed that steam-power has been of immense service to mankind, but the time has now arrived when even a better motive power than steam is required for the purposes of trade and commerce, as well as to prevent the evils resulting from loss of time and property, as well as the sacrifice of human life.

In consideration of existing circumstances, I beg to state that I am in a position to suggest a new mode of producing motive-power, which could not fail to tend to the public good. No large amount is required to practically test the invention, so that I entertain the hope that by your permitting communications for me to be addressed to your office I shall obtain the necessary co-operation for developing it.

J. M.

## TWIN SCREWS.

SIR,—Much controversy has recently engrossed the columns of the scientific press in regard to the supposed originator of the proposition for the application of twin screws to steam-ships. I have not hitherto joined in that controversy, but am disposed now to state, if you will allow me, some facts in reference to the subject.

So long back as the winter of 1848-9, Mr. Joseph Apsey, who was then in business for himself as an engineer and machinist in the neighbourhood of the Blackfriars-road, called upon me and exhibited drawings of a steamship, in which a small screw was shown under each quarter. He also exhibited a peculiarly-formed brass model of the proposed screws, and which certainly proved that he had well considered the matter. He contended that great advantages would arise from the adoption of this mode of marine propulsion, and recommended that each screw should be driven by a separate engine. Like many other clever inventors, Mr. Apsey was without the requisite funds for realising his plans, and he not only solicited my assistance, but that of other engineers, to enable him to fit up and start a small boat on the Thames in accordance with his views. Though fully impressed at the time with the value of Mr. Apsey's proposed system, I was not in a position to advance money for the purpose of realising it, and this probably was the case with others.

So far as I am aware, no attempt has been made to establish a claim to the proposition for any other person at so early a date as that named above. I shall not go so far as to say that Mr. Apsey's plans have been appropriated by others, but I do assert my firm belief that to that gentleman belongs the merit of having first suggested the application of twin screws, with separate engines for driving them. What has become of Mr. Apsey now I know not; but, in justice to him, I feel that I ought not to be silent at this juncture. I am not an advocate of the twin screw system, because I have more faith in a recently patented plan of marine propulsion—that of Mr. Vail, of which some notice has been taken in your own columns, and which is deservedly, as I think, attracting the attention of marine engineers and shipbuilders. It is solely with a view of "rendering unto Caesar the things that are Caesar's" that I trouble you in the matter of twin screws.

Royal Mint, July 1.

JOSEPH NEWTON.

## MAGNESIUM AS A COMMERCIAL PRODUCT.

SIR,—In last week's Journal you speak in terms of high praise of the invention patented by Mr. Sonstadt, for the production of magnesium upon a commercial scale, but there are two very important points in connection with the subject, of which no mention appears to be made; you do not state in what quantity it is likely to be produced, nor do you state its cost. I am prepared for the reply that the cost will depend upon the demand; that as it has only just been obtained upon anything approaching a commercial scale, the question cannot be answered, and similar general statements upon the subject; but there appears to be so many difficulties attending the manufacture of magnesium, that I am at a loss to understand of what commercial use the metal can be, at least produced in the way described in your article. Perhaps Mr. Sonstadt can inform us.

From the statement which Mr. Sonstadt gives, he appears to follow a process very similar to that employed in the production of aluminium, whilst, so far as the patentability of the process goes, it is very questionable whether the publications of St. Claire-Deville would not materially interfere with him, at least to the extent of preventing him from recovering royalties. Deville described an analogous process before Mr. Sonstadt secured his patent, and to prove the validity of Mr. Sonstadt's patent, it must be shown that the use of an iron crucible is an essential part of the invention, and that Deville has not employed iron for the same purpose. The chemical details of the two processes are so nearly identical that I cannot think the patent would stand upon that alone.

With regard to magnesium itself, Mr. Sonstadt tells us that it can be used as a substitute for silver; but, I would ask, would it not be something like employing gold as a substitute for brass, or silver as a substitute for tin? I do not think Mr. Sonstadt can hope to bring magnesium into the market at a lower price than aluminium is at present, which, I believe, is about 4s. per oz., which is only 20 per cent. less than silver; and for some time to come—at least, so long as the magnesium is obtained only from Epsom salts and sea-water—I fear the cost would not be less than 10s. per oz., or just twice the price of silver. We must remember, too, that the tarnish in silver is readily cleaned off by friction, whilst the result of exposing magnesium to the air will be the formation of a film of magnesia upon it, which sticks tenaciously to it, and requires benzine or other similar substance to remove it; the softness of the metal preventing its removal by the means usually adopted with silver.

But this is not the only objection which I conceive there would be to the use of magnesium—it will require to be worked at a high temperature, and upon the slightest excess it will inflame, so that there is reason to fear that a workman in manipulating it might find his raw material suddenly burst into flame, and leave no more residue than would a similar quantity of gunpowder. Mr. Sonstadt may be able to explain how these inconveniences may be avoided, and I think that he should have been asked to do so, and also to point out the precise differences between his process and that previously described by Deville, before leading to the expectation of such great results in a commercial point of view.

AMMONIA.

## THE NEW METAL—SIDERIUM.

SIR,—Reference is made in the *Mining Journal* of last week to the discovery of a new metal, occurring in infinitesimal proportions, in the residue obtained in the manufacture of metallic magnesium, and we are told that so tedious is the process by which the new substance is procured that the present rate of production of its oxide only reaches a fraction of a grain per week. Now, although there can be no doubt that the discovery of a substance existing in such minute quantities gives evidence of the diligence of a chemist, the practical and commercial world very naturally desire to know of what utility, beyond the pale of technical chemistry, are the researches which led to the discovery of either of the most recent chemico-metallurgical novelties—thallium and siderium. From this point of view both substances are much in the same position, and for the present I will assume that both thallium and siderium are, commercially, worthless, and altogether incapable of being isolated upon a large scale, and endeavour to ascertain what is the utility of the discoveries.

This is without doubt a question which has suggested itself to many, not only with reference to thallium and siderium, but with reference also to a vast number of apparently unimportant discoveries of a strictly scientific nature. Now, it is true that although only twelve months since Mr. Crookes had not satisfactorily ascertained whether thallium was even entitled to be denominated a metal at all—indeed, at the time of the opening of the recent International Exhibition he seems to have been inclined to regard it as a metalloid only—Mr. Lamy has been enabled to exhibit it in its metallic form, and Messrs. Bell Brothers, of Newcastle, have publicly exhibited a 10-in. ingot, and it is not impossible that ere another year has passed we may have an opportunity of examining metallic siderium; but even had nothing more been done with thallium than was done by Mr. Crookes, and if nothing more be made known of siderium than has already been discovered by Mr. Sonstadt, the discoveries are undoubtedly of commercial utility.

It does not necessarily follow because a substance is of itself without value that the knowledge of its existence is without value also—in the cases of the substances under consideration precisely the reverse is proved. It may be found with respect to thallium that the removal of it in the treatment of those descriptions of cupriferos ores in which it is contained will add materially to the value of the finished product, whilst there may be cases in which a minute addition of the metal may be of great advantage.

In the case of siderium, the importance of the knowledge of its existence has already been made evident, for Mr. Sonstadt has ascertained that the freer the material from which magnesium is reduced is from siderium the more readily does it run together. Now, the more we know of a substance the more easy is it to deal with, and it is not improbable that had the siderium continued to be mistaken for the iron with which it is associated, serious and most annoying obstacles might have presented themselves on the attempt being made to introduce magnesium upon a commercial scale.

It is to a knowledge of the precise constituents of a commercial article that we frequently owe success, and it is owing to this circumstance that I maintain that the value of a discovery cannot always be judged of by the intrinsic worth of that which is discovered, and that comparatively worthless (so far as yet proved) as are thallium and siderium, Messrs. Crookes and Sonstadt are entitled to great honour for their discoveries, which may prove of as great importance to commerce as if those substances had been more readily obtained, and of greater commercial value in themselves.

With regard to the name siderium, by which I have designated Mr. Sonstadt's metal, I think it will be considered not inappropriate, from the similarity of its reactions to those of iron, in Greek, *sideros*, whilst the use of Sd. in chemical formulae will not interfere with any existing symbol. It may yet be proved that the new substance is only a metalloid, in which case it will simply be requisite to change the termination *ium* into *on*, and all confusion will be prevented.

E. D. H.

## MINING IN IRELAND.

SIR,—In perusing the Journal of the 13th inst., I observe the remarks touching on mines in the locality of Schull: some of them are reported as genuine, particularly Schull Bay, where the writer is interested; but finding there are erroneous statements respecting Long and Coney Island Mines, I beg to correct him in his misstatements thereon. About twenty years ago two strong lodes were discovered on Long Island by a Captain Martin, of Cornwall (who also at the same time opened the Cooheen Mine, now called Schull Bay). At Long Island Captain W. Thomas extended a cross-cut south 3 fms., and 10 fms. from surface, but he did not intersect the lode, and got mystified. A short time since an influential Liverpool company took the mine, and extended the cross-cut south 4 fms., and cut a lode 7 feet wide consisting of elvan, gossan, quartz, and branches of grey and purple, from which two shales were made, together with Coney Island, a trifling expense. This will positively show it is anything but a twisted, thin, laminated slate rock, which your correspondent had the kindness to state. The gentlemen, previous to spending their money in this spot, had the opinion of able and scientific mining authorities, which quite satisfied them, without going to Capt. W. Thomas for his opinion. At present there are three shafts sinking at Coney Island, varying in depth from 20 to 15 fms., with nine men in a shaft; the shafts are producing green and blue carbonate and rich grey sulphate of copper, worth 37 per cent. Another cargo is preparing for shipment.

Long and Coney Island Mines, June 30.

CHARLES THOMAS.

## WEST CHIVERTON MINE.

SIR,—In reading last week's Journal I note Mr. J. Y. Watson's remarks on West Chiverton, and in it he refers pointedly to me and my valuation of the mine, and he hoped I did not do so for the widow. I may inform him I neither valued the mine for the widow or the party that purchased the mine; consequently, my opinion, or valuation, could have no effect in the purchase, whether high or low. Of course, the animus of the remark to me is quite understood, especially when he says sneeringly the "famous" agent of "Herodfoot" said so. It is proverbially known that Mr. Watson bears Herodfoot Mine and its agent in mind, and is always ready to refer to any fault or flaw in that concern to my disadvantage, as he well knows, with all his facilities, he is only second-best man; and to select West Chiverton for an attack is a mistake of his, especially when I refer to my advice and opinion of West Chiverton seven years ago. I hope I shall not be thought egotistical, or boasting beyond measure, to refer to the report, and my opinion of the mine, at that date. If Mr. Watson will ask the widow, Mrs. Cookney, or her solicitor, he will find my report, and in it directions how to work the mine. The result is now verified by the returns made and net amount realised. I was employed by the late Mr. Cookney to inspect the mine. I then found fault with, and condemned the mode of working, and suggested a different course of operation, which was opposed by the then manager. This led to a second inspection, at the request of Mr. Cookney; the result was that I again suggested, in a long report with explanations, how the mine should be worked, and I thought, in a legitimate manner, it would prove to be a successful mine. My recommendation, to the letter, Mr. Cookney carried out. He displaced the old manager, and appointed the present one. The result of my recommendation speaks for itself. I have no wish to enlarge or comment on my services to Mr. Cookney, but think my words and works have been to the advantage of the widow, Mrs. Cookney, rather than otherwise.—*Herodfoot Mine, July 2.*

THOMAS TRIVILLION.

## NEW WHEEL MARTHA.

SIR,—Returning to town to-day, after a week's absence, I find nearly a score of letters from shareholders and others interested in New Wheel Martha, drawing my attention to the comments of Mr. J. Y. Watson, in last week's Journal. To those acquainted with mining matters, and knowing the difficulty of drawing correct conclusions, even when the data have been most carefully observed, the rambling, jauntily manner, slipshod inferences, and absurd deductions of your correspondent only provoke a contemptuous laugh; but with a large class of readers, whose only information is got from such jottings, it would be needless to deny that those very qualities cause them to be read with no small interest, and, like the leading incidents of a fictional novel, the more startling and absurd the statement the greater is the sensation created. As the statements therein made are not only absolutely untrue, but totally devoid of any foundation, I am forced to believe that they have either been formed with a reckless disregard to truth and facts, or else for some other object far from commendable. This is the more regret with a writer of the standing and experience of your correspondent, as he knew well that by a reference to me, or at my office, he might have had every, and any, information with an accuracy which, under any circumstances, he could not obtain from the gossip or rumour about him. To go to a mine and spend from 15 to 20 minutes upon the dressing-floor, as Mr. Watson did at New Wheel Martha, and then to write a note from anyone he happened to meet, and then drawing conclusions from these, upon the history, finances, prospects, nature, and extent of the mine, may be an easy way of "doing" all the Cornish mines in a fortnight, but assuredly it is not the way to succeed in establishing the confidence of the public on the comments published. It is to be hoped that the opinions given by him as to other mines have not been as lightly and flimsily formed as those on this one. Mr. Watson's statement is so rambling and disjointed that it is difficult to reply to it *seriatim*. I can only say—1. There was no such sum as 15,000*l.* expended by the late Great Wheel Martha Company, for the simple reason that the shareholders have not the option of retaining the same proportional interest in the new company that he held in the old one; and, with scarcely an exception, the shares of every original shareholder in the old company remained unchanged in absolute value.—2. No portion whatever of the capital of the new company has been taken to pay the debts of the old one. The mine was sold to the new company for 5000*l.*, in 11. shares, leaving 5000*l.* of working capital to carry on the development of the mine to the depth contemplated.—3. The returns from the last sale of ore not only "nearly met the working cost of the mine," as stated by your correspondent, but they exceeded it by almost 100*l.*; and this, notwithstanding that one-third of the cost was for driving and sinking, or, in other words, non-productive labour, while the average price of the ore was 30 per cent. higher than it ever before realised.—4. Your correspondent hints that as the mine is now being worked we are taking away the ore "too fast," leaving no reserves. Whether it is right or wrong to leave large quantities of ore standing in a mine at the time when you are making calls on your shareholders I will not debate; it is not what would be practised by a single individual under the same circumstances, but I can only say that I have to-day had sent to me a report made lately by one of the most eminent of the South Cornish managers, prepared for a person totally unconnected with the management, wherein he says that fully one-third more—that is 100 tons more per month—than we are now raising could be easily taken away. Personal observation, and the reports of half-a-dozen first-class miners during the last two months, enable me to substantiate this; in fact, scarcely any of the rich ore discovered in the 52, and now proved to go down to the 64 and 74, has as yet been removed, nearly the whole of the rich banks between the 52 and 64 remain standing, and must do so until the latter level is driven far enough and the 64 and 74 levels have been valued at the lowest figure at 9000*l.*, with not without regard to the enormous masses of poor ore in the other portion of the mine.

In conclusion, I beg to inform your correspondent that never since the formation of this company has the pay been delayed beyond the time it was due, save on the last payday, when, owing to the purser being in town on important business, the payment of the men was delayed for a few days, until his return. The question of limited liability and cost-book management is so much mixed up with his comments, that it is difficult to find out whether the effusion is a diatribe against the Wheel Martha Mine or limited liability. This I leave, with the remark that if the principle of limited liability has no stronger case against it than the past workings and present success of Wheel Martha, I have little fear that in a few years it will be as generally adopted even in Cornwall as it is now throughout the kingdom, and with equal success.

12, Copthall-court, Throgmorton-street, July 3.

## THE LAW OF JOINT-STOCK COMPANIES.

SIR,—I observed some remarks in last week's Journal, made by a correspondent, relative to a Welsh Gold Mining Company. I have very little experience in the law of joint-stock companies, but I have little doubt that your correspondent can prove the statements made in his letter, that the directors would be bound to refund the deposit money. Surely "J. S. L." or some interested person, could propose a plan which would tend to the recovery of the money; at all events, it would not be difficult to obtain legal opinion with regard to the proceedings of the directors, which I consider is a thing which the shareholders ought to do without loss of time. I believe Mr. Henry Peet, the Secretary of the Sovereign Gold Mining Company, received a letter some time last month, requesting him to send "a statement of the financial position of the company," in accordance with the company's Articles of Association, to which he made the following reply:—"According to the Articles of Association, the first general meeting of shareholders is to be held within a year from the formation of the company, and accounts submitted for audit. Afterwards quarterly statements are to be sent out, and half-yearly meetings held." Such a statement may be in the Articles of Association, although I am unable to find it, but I am quite certain that a clause will be found in the prospectus to the following effect:—"The directors guarantee that a statement of the financial position of the company, with full particulars of the proceedings and results of the workings at the mine, shall be made up every three months, and sent to each shareholder. The meetings of the shareholders will also be held half-yearly."

Knowing this, I was astonished to see a letter in last week's Journal from Mr. Henry Peet, stating that he would be glad to give shareholders any information they might

require. I believe a meeting will be held on the 29th current, at which the directors will have an opportunity of giving an explanation, which will, perhaps, help to clear up the doubts which exist with regard to this company.

E. C. Y.

## INTERESTING FACTS FOR SHAREHOLDERS.

SIR,—Most of your readers must have noticed an advertisement headed "Reform your Tailors' Bills." Now, I have no doubt that reform is wanted in tailors' bills as well as in most other things; but the case I am about to bring before the reader's notice is one of such an extraordinary character, that I am sure everyone must agree with me in the opinion that reform is wanted in the management of mines, particularly as regards the selection of men to be placed on the committee of management.

When I state the particulars many of my readers will, I am confident, imagine I am only making fun of the thing, and that I am drawing largely on my imagination to make this letter as amusing as possible; but no, what I am about to state are facts—stubborn facts. I know many persons will be astounded that such a state of things could have lasted so long, and in offices the most respectable in London; but they have existed, they do exist, and the sooner they are altered the better for the offices and the supporters of them.

The mine I am about to allude to is in an office—not which no office in London is better managed—and the committee of management receive 7*l.* per annum for their few hours attendance, which is really a source of amusement during the year, and get, as a matter of course, important information respecting the mine long before it can be received by the general body of shareholders—no trifling advantage in a speculative mine, and in comparison to which the 7*l.* a year would be an insignificant item.

I do not mean to insinuate for one moment that the gentlemen who at present form the committee of management would take the least unfair advantage from occupying such a position, and I now write more to oppose the system as it is at present carried out, than to insinuate in whose persons it is exemplified. We all know that committees may change, and that it is not impossible that men may be appointed who would take advantage of their position.

The mine in question consists of 6000 shares. How many of this number do my

readers suppose the three gentlemen of the committee of management held at the last

general meeting, and probably now hold? Perhaps it may be imagined they held 300 or

400 shares each, from the fact of their being the managing directors of the mine; but no,

Perhaps 100 or 200 each. No. Surely 50 or 100 shares each. Again no. I fancy I hear

some exclaim, "Then what number, in the name of goodness, do they hold to be thus

placed above all their fellow-shareholders?" Listen, and I will tell you; they hold be-

tween them, the three, mind, exactly—but you shall have them separately. When

there are some shareholders in the mine holding nearly 300 shares, others 200, &c., who

have nothing to do with the management, with what indignation will they read the following?

The first held 25 shares; the second held 20 shares; and the third—do not

laugh—held exactly nine shares. Nine shares; "think of that, Master Brook!" a

gentleman receives 25*l.* a year from the mine in which he has an interest amounting

to just 18*l.*, for at the present price it is just what his nine shares are worth.

I say every shareholder, who is not a member of the committee, must feel indignant at

such a farce; I know I do, and I sincerely trust now I have brought the subject to light,

that others will follow it up, and weed out such absurdities with root and branch. If

this member of the committee thinks so little of the mine as to hold such a small interest

in it, why does he hold even his nine shares? It surely cannot be for the sake of the 25*l.*

a year; no, this I cannot believe—it must then be for the honour of the thing, but what

honour can a director expect to receive from his fellow-shareholders, when they know

that for his 18*l.* worth of shares he is drawing 25*l.* a year from the mine. Again, I

ask, what interest a rich man can be expected to take in a concern in which he has

a stake of only 18*l.*? Away with such folly, and let us do things in a business-like man-

ner. Let every mining adventurer from this time demand to know who are the gentlemen

who form the committee of management in every mine with which he is connected;

let him enquire how much they receive for their few hours' attendance; and then let

him demand to see the list of shareholders, either when he makes the application, or the

list that was produced at the previous meeting. I fear there will be found many other

committees holding less than 20*l.* worth of shares, and who are receiving about

double the amount from each mine for their patronage.

Some men, I am told, lay themselves out for this sort of thing, and are always on the

look out to worm themselves into such nice pickings—rich men, too, who ought to be

above the suspicion of such a proceeding. If none but poor devils did this, I could

forgive them; as, like the *Apothecary* in "Romeo and Juliet," their poverty, not their

will, consents; but for a rich man to be receiving the interest of nearly 1000*l.* for an

outlay of a dozen pounds, is a thing which would scarcely be tolerated in any concern,

but that of a mining company? Everybody knows that the very attempt would be

scouted. In a mine on the Cost-book System, all the shareholders are partners; and

yet the partner who has as many pounds in the concern as another has shillings or even

pence, is to allow this latter one to have advantages which he himself is not allowed to

have! The more I think of it, the more disgusted am I with the whole concern. A

man to hold an interest in a mine amounting to 18*l.*, to receive 25*l.* a year for the

privilege of holding it, and to receive immediate information from the mine, by which he

may increase his interest at any moment, and probably pocket thousands of pounds! It

is a complete farce. I wish *Punch* would take this subject up, and shame men from

receiving money from a concern in which they have so little interest.

On my mentioning the subject to several parties, they have said they could not have

supposed such a thing would be allowed in a respectable office; but it must be remem-

bered that the managers have nothing whatever to do with it; the fault rests entirely

with the shareholders who elect the committee.

As many persons may not know the duties of the committee of management, I will

tell them what they are expected to do. The *real* managers of the mine, be it remem-

bered, are the secretary and the captain; and all a member of the committee is expected

to do is to pass their accounts, and sign his name a few times per annum in a book.

The secretary says "a certain sum of money is wanted," the members of the committee

say "take it;" the captain of the mine says "certain things must be done;" the com-

mittee say "do them." Occasionally they take a nice little trip to Cornwall, and, of

course, at the company's expense.

If such committees are of any use, and are to be continued, I say that justice and

common sense demand that such appointments be given to those who hold large inter-

ests in the mine, and who will do all in their power to support it in its adversity. If

any little pickings are to be had, surely the man who holds his hundreds of shares is

more entitled to them than those who hold their half-score shares.

In most other companies a man must be qualified for a member of the committee by

holding a large interest in the concern. Why is not this rule enforced in mining com-

panies? A man may actually be a member of the committee of a mining company, and

receive 25*l.* a year for a little amusement, with a host of advantages, by simply holding

some solitary share. Yes, a committee man may decrease his interest from 18*l.* to 40*l.*, and

still receive his 25*l.* a year. Am I not right in saying that such a system is a farce?

It is to be wondered at that respectable men are getting disgusted with mining? A

man to be a member of the committee of management in a 6000 share mine should hold

at least 100 shares, and if he has less than that, he should be disqualified. Let him sell his interest if he likes, but if he does not continue to hold

his 100 shares during the whole of the time, from meeting to meeting, let his pay stop.

Let this rule be enforced.

I will now drop this subject, and hope that some one more competent to handle it will

continue it in next week's Journal.

I will next introduce to the shareholders' notice another subject, and to which I beg

to call particular attention; it is that of North Downs Mine.

Many parties are enquiring whether it is not best to sell the *Peavon* part of the set

of North Downs, particularly the Capt. F. Pryor says he can get 5000*l.* for it. I am of

opinion that it should be sold, and that Capt. Pryor's offer is a very good one, and he

ought to be allowed to do so. Let us not wait until the next meeting to decide on this,

but let it be done at once, so as to prevent any more "calls" being made. I, therefore,

propose that every shareholder in North Downs should immediately write to the secre-

taries in the following manner:—

"Gentlemen,—I authorise you to request Capt. Francis Pryor to get the best offer he

can for the *Wheel Martha* part of North Downs, and to sell it to the highest bidder.

Messrs. Dunsford and Ranken, Old Broad-street, London."

I trust shareholders will not neglect to send this letter to the secretaries, as a few

hundred in the hands of our bankers will give North Downs a totally different appear-

ance, and I have no doubt the price of shares would soon be doubled. The trouble is

nothing; therefore, let it be done.

To-day (Wednesday) there is a great demand for North Downs, and no sellers. This

is just what I expected—viz., that the moment shares were enquired for no one would

sell. North Downs will be yet all right.

A CAUTIOUS MAN.

## MINING IN IRELAND—No. VII.



ing to appear to be what he is not. What Capt. W. C. Paul intended to convey as to the percentage of the cargo of ore at Cragg Mine it is impossible for me to judge. I simply quoted what he said—viz., "That they have already raised between 70 and 80 tons of rich ore, yielding from 40 to 60 per cent. of pure copper." If he meant to convey to the public that the yield would be from 40 to 60 per cent. of pure copper, why did he not say so? The public judge the acts of people by what they say and do, but they cannot judge what any man intends to convey or does not say. The public can judge, however, what a man's judgment is worth when he says a parcel of ore will produce from 40 to 60 per cent. of pure copper, when the actual produce is about 12 per cent. I have never attempted to pervert facts; but have done more for the public interest and the encouragement of legitimate mining in this country than Capt. W. C. Paul is likely to do, although he is a director. About the dialling of Crookhaven Mines, Capt. Paul says—"From what false plans of mapping or dialling he has taken his ideas, which are certainly incorrect, I cannot say. I have had too many years' practical experience in dialling and mapping, on the most approved methods, to be taught by your correspondent in that art in the old style." I am ready to admit and prove that the dialling plan I saw was incorrect, and also state that it was made by Capt. Paul himself. With regard to the "old style" of dialling, I know men of the "old style" who would dial more correctly with a three-legged stool than the plan I saw. Again, Capt. Paul says—"On enquiry I found there was no plan or section of the workings kept. This resulted in my dialling the mine, and I ascertained beyond a doubt that the purple ore lode had not been cut below the 7 ft. level." I ask Capt. Paul, as a "lover of truth," was the above the whole and sole reason for his dialling the mine? I ask him also, and I defy him to deny it, was he not a Schull, having returned there after inspecting the mine, in fact, on his way back to London, taking Roaring Water on his way, when it was pointed out to him that he had not seen the most important part of the mine, although he had finished his inspection, and, if I am correctly informed, had made up his mind to condemn the mine, when it was decided by his co-director that, after visiting Roaring Water, he should return again to Crookhaven, and dial the 20 and 40 cross-cuts, and it was only then he discovered, what was well known years ago, that the purple lode had not been cut in either of the cross-cuts. I ask him again, was it what was explained and pointed out to him in Schull his reason for returning again to the mine, or his not finding a plan and section of the mine, or whether he would have ever dreamed that there was such a thing as all in the mine as the purple ore lode unless it had been pointed out to him, although he, a director, was on his way back to London, after his inspection of the mine? I now leave Capt. W. C. Paul to repose on his well-earned laurels.

## Meetings of Public Companies.

### WHEEL CROFTY MINING COMPANY.

A general meeting of shareholders was held at the London offices of the company, Gresham-house, on Wednesday, Mr. F. WILSON in the chair.

A code of rules, in accordance with the cost-book and the Statutory laws, was adopted. A financial statement showed that 1100l. had been paid as purchase-money for the property, including all the plant, consisting of two steam-engines, pitwork to the 46 ft. level, whims, chains, railroads, ore-dressing apparatus, &c. Since the purchase of the property, the engines have been put into a thorough state of repair, and all the machinery was reported in excellent condition.

A committee, consisting of the following gentlemen, was appointed:—Messrs. F. Wilson, J. E. Squire, Richard H. Webb, W. C. Viner, and W. L. W. Webb. The following officers were appointed:—Mr. James Lanyon, of Cambrone, purser, at 8s. 6d. per month; Capt. Skewis, manager, at 10l. 10s. per month; Capt. Vincent, underground agent, at 7s. 7d. per month. A call of 7s. per share was made.

The following information was afforded to the meeting:—This mine formed one of the most important, and richest part of the formerly very productive and profitable copper mine, East Wheel Crofty; it is bounded on the east by South Crofty, on the west by Dolcoath and the old South Roskear Mine, on the north by North Crofty, and on the south by Cook's Kitchen, being thus surrounded by mines all of which are, or have been, rich in copper and tin. It is traversed by a great number of lodes, some being cañons, and forming numerous junctions and intersections, many of which have been already found to produce large quantities of copper at shallow levels, and there are good bunches of copper, which can be worked on at once. One of the most extraordinary facts connected with this mine is that none of the levels have been driven into the western part of it, through which passes the great Dolcoath and Cook's Kitchen cross-course, against which in both the mines last named large masses of copper ore were found, which gave immense profits. In the mines to the north also, North Roskear and Wheel Seton, fine courses of copper ore existed on each side of the same cross-course; yet in the intermediate and parallel ground in this mine the numerous lodes remain at present unexplored to within a long distance of the cross-course. The levels will at once be pushed on with all possible speed to this very promising part of the mine, the Copper, Tankard and other lodes, and it is very confidently predicted by some of the most cautious and experienced mining authorities of the district that valuable discoveries will thus be made. The lode also, known as North Tincroft lode, which has produced very large quantities of copper ore in Tincroft and Cook's Kitchen, underlies from the latter mine into this at about the 120 ft. level, and a cross-cut will be driven south to intersect it with all practicable expedition, as it is likely to prove one of the most valuable features of this mine; this lode also has never yet been seen near the great cross-course. The objects which are being carried out in this mine are such as can scarcely fail to lead to discoveries from which large profits will follow, the features being precisely the same in the undeveloped portions of the ground as those in the rich mines by which it is completely surrounded, and the expenditure would be light, seeing that the cost of draining must always be so greatly relieved by the numerous deep and extensive mines in the midst of which it is situated.

### ROSEWARNE CONSOLS MINING COMPANY.

An ordinary general meeting of proprietors was held at the London Tavern, on Tuesday, Mr. E. J. WILSON in the chair.

Mr. T. HOLLOW (in the absence of Mr. J. Hollow, the purser) read the notice convening the meeting, and the minutes of the last were read and confirmed.

A statement of accounts was submitted, which showed—

Balance last audit	£ 241 16 10
Mine cost, Jan. to April	1387 6 8
Dues, &c.	89 19 6
Merchants' bills	652 7 7
New engine, boiler, engine-house, &c.	996 10 10
Last call (less discount)	£ 969 6 6
Copper ore sold	1004 10 7
	2033 17 1

Leaving debit balance £1298 10 4

The report of the agents was read, which stated that since the last meeting they had sunk the engine-shaft 7 fms., fixed lift, footway, &c.; sunk Ellen's shaft 5 fms. 2 ft., and put in beams and clamps the 40 ft. level west from the engine-shaft 10 fms.; driven the 60 ft. level of Ellen's shaft 15 fms. 3 ft., and the same level east 13 fms.; driven the 50 ft. level east of Ellen's shaft 6 fms., and the 40 ft. level 2 fms.; also sunk a winze in the bottom of this level 9 fms.; driven the cross-cut south at the 40, 18 fms.; and driven the 30, east of No. 1 cross-course, 20 fms., which is now suspended, being near the boundary. Total ground opened for the four months, 108 fms. The present operations are as follows:—The engine-shaft is sinking below the 40, by eight men, at 10l. per fathom; lode 18 in. wide, producing stones of ore, and showing indications of an improvement soon. The 40 ft. level is driving west from the engine-shaft, by two men, at 40s. per fathom; lode 15 in. wide, and much of the same character as it is in the shaft. They expect an improvement here shortly, as the end is approaching the junction with the cañon; and at Wheel Unity they have a promising lode in the 30, driving east towards the western boundary. Ellen's shaft is sinking below the 60, by six men, at 9l. per fathom. The lode here has a very promising appearance; it is 18 in. wide, producing rich stones of ore. In the cross-cut driving south in the 40, they have intersected two ore branches underlying north, and one of them will form a junction with the lode in Ellen's shaft at the 70, which point they hope to reach in about six weeks, and where they expect a good discovery. The 60 ft. level is driving west from Ellen's, by four men, at 40s. per fathom; lode 18 in. wide, at present unproductive—the first 6 fms. was good, and the best of the mine was found at the 11, the latter part has been good. The same level is driving east, by two men, at 40s. per fathom; lode 15 in. wide, and will about pay for driving. The 40 ft. level is driving east of No. 1 cross-course; lode in this end will also about pay for driving. There are four men clearing the adit on Clowance cañon; the object in doing this is to find a cross-course, in which Wilson's lode has been reported to have been cut, and to repair it for the benefit of the mine. There are 26 men working on tribute, at an average of 7s. 10d. in 1l. There are employed upon the mine and underground 110 persons. Should the weather continue fine, the new engine-house will be completed in a few days, and the engines are preparing to get the engine in. On the whole, the prospects are encouraging, looking at the junction with the branches referred to at the 70 in Ellen's shaft, and the ore ground they had in the 30, east of No. 1 cross-course, which is dipping west, and must be met with in Ellen's shaft at a deeper level, and they considered they were looking fair for opening out a promising mine. They had a long piece of ground standing on the cañon, which they would begin to work on as soon as that part is drained by the new engine. They had also great hopes from Wilson's lode, in the south part of the sett, which is new ground, and to prove and lay open which they would actively proceed as soon as possible.

The CHAIRMAN said he thought his fellow-proprietors would agree with him in considering that the best way of the property was to be of a most satisfactory character. He had hardly said that during the past four months there had been a large amount of extra cost, for that would be seen by the accounts just submitted, in which nearly 1000l. had been charged for a new engine, boiler, and engine-house. Deducting this exceptional cost, it would be found that the monthly expenditure had been nearly met by the returns; but when this new engine was at work they would be able not only to develop the mine with greater vigour, and consequently, increase the returns, but the cost of development would be economised. It would enable them to sink the flat-roof shaft, and develop the cañon lode, from which ore could at once be broken. In fact, they would be sinking three shafts, and developing two distinct lodes. Their great drawback had hitherto been the smallness of the old engine, but that difficulty had been overcome; that engine could now be sold, and the amount realised added to the company's assets.

Mr. T. HOLLOW, in reply to a question, stated that the engine would be at work in about six weeks from the present time. He thought it might be as well also to state that the completion of the engine-house had been unavoidably delayed by the heavy rains that had prevailed during the past four months.

The CHAIRMAN said he had visited the mine since the last meeting, and went underground. He was very well satisfied with all that he saw, and more particularly with the very fine nature of the ground, which enabled him to drive and develop lodes cheaply and quickly. Everyone in the district of whom he enquired spoke most encouragingly of the property, the general opinion being that as soon as the engine had been got to work remunerative returns would be made.

Mr. ORR said the last sale of ore, which was the best that had taken place for some time past, could not fail to be regarded as an encouraging feature.

Mr. ELAY enquired if the whole of the bills had been charged up?—Mr. T. HOLLOW replied that every known liability to the end of April had been charged up, including the total cost of the new engine, boiler, and engine-house.

The CHAIRMAN said he had gone carefully through the accounts, and had found them correct; and he was of opinion that it would be the better course for the shareholders to make a call upon the present occasion sufficient to pay off the whole of the debit balance, so that in future there would be nothing but the ordinary costs of the mine.

Mr. ORR suggested that the agents should be instructed to state in their reports, which were sent to the Journal, the quantity of ground sunk and driven during each month. Such information, he was sure, would be received with satisfaction by the shareholders. Mr. T. HOLLOW said he would see that suggestion carried out.

The report and accounts were received and adopted.

Mr. T. HOLLOW, in reply to a question, stated that the arrears of calls amounted to only 10l. or 12l.

The CHAIRMAN said it was exceedingly satisfactory that the last call had been paid up so well; but, at the same time, he would suggest that steps should be taken to recover the arrears. It was true the amount was insignificant; but he objected upon principle to any arrears being allowed to accumulate.

A resolution was unanimously passed to the effect that proceedings be taken against all shareholders in arrears of call.

Mr. T. HOLLOW, in reply to a question, stated that Wheel Unity was driving east towards Rosewarne Consols boundary two levels, the 30 and 40, in which there was a very promising lode.

The CHAIRMAN said the present was a most critical period in the history of their company, because great expenses had been incurred in the purchase and erection of a new engine and engine-house, none of the benefit of which had yet been felt.

Mr. ORR hoped every diligence would be used to get the shaft down as soon as the engine had been erected.—The CHAIRMAN said, so far as the committee were concerned, they had urged the necessity of expedition.

Mr. ORR thought that was very natural, seeing the very large interest which each member of the committee held.

Mr. ELAY said the general opinion was that the cañon lode would produce important results.

The CHAIRMAN confessed that he confidently looked forward to a great improvement in the mine. Crover and Wheel Abraham, which were in the immediate locality, made rich in depth; and Capt. Richards, of Rosewarne United, was of opinion that the same would be found at Rosewarne Consols. From the underlie of the elvan-course it would be reached at about the 70 ft. level.—That is, if there were no more heave in the ground than had been calculated upon. They had had tin at the shallow levels, and there was no reason why it should not be met with deeper.

Mr. T. HOLLOW, in reply to a question from a shareholder, stated that the Great Roskear Mines, which were in the vicinity of Rosewarne Consols, had a shallow bunch of ore similar to that recently met with in the latter property. There was then a poor neck of ground, but as soon as that was passed through a rich deposit of ore was found, which gave very large profits. Rosewarne Consols was in the same run of ground, and in every respect possessed the same characteristics; there was, therefore, every reason to believe that the same satisfactory results would be realised in Rosewarne Consols as had been the case in the Roskear Mines. It was an encouraging feature to find that the ground at the engine-shaft had recently undergone a favourable change, and he had no doubt that in a few fathoms further sinking there would be a good course of ore in the shaft. Upon the whole, he considered the general prospects of the mine were of the most encouraging character.

A call of 6s. 6d. per share was made. A vote of thanks to the Chairman terminated the proceedings.

### EAST INDIA COAL COMPANY (LIMITED).

The seventh ordinary general meeting of shareholders was held at the company's offices, Serjeant's Inn, Fleet-street, on Monday, Mr. HENRY HAYMEN in the chair.

The ASSISTANT SECRETARY read the notice convening the meeting.

In a circular submitted to the proprietors it was stated that since the last ordinary general meeting every exertion had been used by the directors to place the accounts of the company in order, so that they might be enabled to issue the usual balance-sheet and report to the shareholders, and the directors were to be again compelled to state that they were not yet received sufficient information from India to enable them to do so.

In August last they dispatched their secretary to Calcutta with this object. Mr. Simpson arrived in Calcutta on Sept. 10, and would no doubt have been able ere this to have closed the old accounts, and forwarded the accounts for the past year home, but that, almost immediately after his arrival, his Indian colleagues deemed it of more importance that he should act as secretary to the company in India, with the object of keeping the current work in order, under the directions of the local directors. The directors have every hope that his exertions will enable them in a short time to issue a statement of accounts to the shareholders. The Dhussul law suit, that has been pending, has been decided in favour of the company. The railways of coal have considerably increased; the railway has been opened to the company's Topost Colliery, and they are assured from Calcutta that it only requires additional working capital to make the company pay good dividends. The shares of the company have been largely purchased in Calcutta, the present quotation being about 80 rupees.

The CHAIRMAN said it was with satisfaction that he informed the proprietors that several gentlemen connected with Calcutta, where the company's operations were better known than in this country, had recently joined the undertaking. Although he was not going to move any formal proposition, inasmuch as the facts submitted were more in a circular than that of a report, yet he should be glad to furnish any information desired.

Messrs. F. E. Cutler, D. Downing, S. J. Wilde, and His Serene Highness Meer Jafur Alee, the retiring directors, were re-elected; and Messrs. Peter Brown and W. H. Dawson, the retiring auditors, were re-appointed.

The meeting having been made special, resolutions were unanimously passed reducing the qualification for directors from 100 to 25 shares, and that 10 shareholders, holding in person or in proxy not less than 500 shares, should hereafter form the quorum of a general meeting.—A vote of thanks to the Chairman terminated the proceedings.

### TRUTH'S ECHOES, OR SAYINGS AND DOINGS IN MINING.

The Mining Share Market has been more than ordinarily dull this week, and but for the transactions consequent on the fortnightly account, which took place on Tuesday, very little, comparatively, would have to be noticed. The account passed off as usual, but there was a scarcity in some stocks, among which were East Caradon and Crebtor. There is a manifest improvement in the metal market generally, which will, no doubt, have a tendency to increase the demand for shares, for which there is a fair enquiry, that may ultimately lead to much business.

WEST TOLAGE have declined, and left off lower.—WHEEL BULLERS have been enquired for.—BASSET and EAST BASSET have been dealt in at lower rates.—CLIFFORDS are in good demand, and are freely bought at advanced prices.—STRAIT PARKS are firm at present prices, and strong buyers at minimum quotations.—TINCROFTS have been in fair request at improved rates.—COOK'S KITCHEN and NORTH GRAMMERS have been sought for, and several transactions effected.—NORTH BULLERS and EAST CARR BREA at the lower market figures.—WEST CHIVERTONS are in good demand at improved rates, and from the generally improved prospects of the mine, are likely to advance considerably.—WEST TOLAGE have declined, being more freely offered at lower rates.

UNITED MINES.—The working above the 10, on the heavy spar lode, continues to yield remunerative returns, where the veins varies from 12 to 15 in. in width. In the shallow north-west slope the lode is divided into two parts, but each carries good leaders of ore work, together about 2½ tons per fathom. No material change has taken place in other part of the mine. The veins are mostly small in size, but contain rich quality ore, and look kindly.

OLD MINE.—To the north of Pederson's rise our operations are confined chiefly to stoping, where the lode maintains its large size, being from 8 to 12 ft. wide. The stopes below the 5 ft. level have rather improved during the past fortnight, yielding at present 3½ tons of ore per fathom. In the foot stopes joining the rise a band of greenstone has recently been met with, which will apparently divide the lode, but the value of the latter is not as yet affected thereby, which still yields full 4 tons of ore per fathom, and looks well. In the back of the 10 the lode is about 4 feet wide, with bunches of ore work irregularly intermixed, worth from 2½ to 3 tons per fathom. In the 10 south the lode is over 5 feet wide, composed of quartz, calc-spar, and ore work; it is not so rich as about a month since, but there is again an increase of ore, and the matrix is of a kindlier description. The stopes a few fathoms behind this end looks encouraging, where the lode yields 3½ tons of ore per fathom. On the whole, the prospects at this concern continue good. There is no material change to note in Carr's adit, where the stratum continues rather stiff, but the air-machine and pipes recently fixed enable us to progress regularly, so that no hindrance will occur on this account hereafter.

UNITED MINES.—The levels north, and as the indications are favourable we shall drive a short distance further. We have also been opening on this lode near the surface, where, although not rich, it is from 4 to 5 ft. in width, composed of a good looking matrix, with an intermixture of good gossan and yellow ore. The more effectual exploration of this lode by a good shaft on its course from the surface, to communicate with the workings below, would appear a very desirable undertaking. The pitches here and at Woodfall's look much the same as before.

QUARRIES.—Lode E: Scarcely anything has been done in the 20 since our last, the men having been employed to sink in the bottom of the same level on a promising sheet of ore ground, which has yielded about 3 tons of dredge-work per fathom, but the water here is troublesome. The 15 ft. level stopes has deteriorated, the lode being hard, and the ore highly disseminated. In the bottom of the 10 (recently begun) we are raising some good work, where the lode is 1½ ft. wide, with purple ore intermixed. In the 10 west the lode is somewhat irregular in its dip, but looks more kindly than before, especially in the bottom of the level, where there is now a leader of yellow ore 8 in. wide, nearly solid, but it must be further developed before an opinion can be formed of its value.

The adit at lode A is not yet broken through to the stopes, but the distance left is short. The Eastern lode still looks well, being 5 ft. wide, with 4 tons of ore per fathom. We have not yet been able to do much at the surface, but the weather has now set in beautifully fine.—CHARLES TRELAKE.

COPITAPO.—June 15: Checo Mine: In the 60, east of Price's shaft, the lode in No. 2 chifon, sinking west, is much the same as when last reported. The 60 ft. level stopes are still producing from 6 to 7 tons of 28 cent. ore to the fathom—a good lode of ore. In the 50, at No. 2 chifon, sinking west, the lode is 3 feet wide, 1 foot of which is ore of about 15 per cent., looking very kindly. The 60, on No. 1 chifon, is poor, and stopped. In the eastern new ground, in this chifon, the lode is still poor.—Western Sett: All operations at the shaft we shall stop, the times being so bad; the 10 we shall stop also. In the western new ground the lode in the chifon is much the same as when last reported. Account of ground sunk by the vass in April:—The 60, at No. 2 chifon, has been sunk 10½ fms. by three men, at 28s. per vara. The 60, at No. 1 chifon, has been sunk 5½ fms. by two men, at 20s. per vara. The 60, at No. 2 chifon, has been sunk 6½ fms. by two men, at 20s. per vara. The eastern chifon has been sunk 5 fms. by two men, at 20s. per vara.—Total, 27½ fms. Number of men employed in April:—Englishmen, 12; natives, 63;—Total, 75.—G. MATTHEWS.

MARIQUITA AND NEW GRANADA.—Santa Ana Mines for the month of March:—Cost, 812,905; returns, 200,188.—Marmato Mines: No advice. The lode in the stopes in bottom of the 110 is about 7½ ft. wide, producing rich dry stamps mineral. The stopes are three in number: 15 men are employed in working them, who have stopped out 5 fms. 0 ft. 5 in. In the stopes in back of the 110, north of winze, the lode is about 7½ ft. wide, producing rich dry stamps mineral; stoped 2 fms. 4 ft. 6 in. In the stopes in back of the 90, north of flookan, the lode is about 2 ft. wide, producing good wet stamps mineral; stoped 1 fm. 2 ft. 6 in. In the stopes in the bottom of the 100, north of winze No. 3, the lode is about 5½ ft. wide, and very rich throughout for dry stamps mineral. In the stopes in the back of the 100, south of flookan, the lode is about 3 feet wide, producing good wet stamps mineral; stoped 5 feet. The new shaft is enlarged 1 fm. above the 100 last month, and also sunk 3 ft. below the 100. The prospects of the mine continue very good.

CAPITA.—Capt. Bray, May 17: We have communicated with the level of San Jose, and have only about one week's work for eight men to bring the bottom of the shaft down to the general level of the works of the mine. San Enrique has been driven by four men and two boys 3-80 varas, at 40s. per vara. Since my last the improvement in this level has been gradual, and it now looks much better than I have yet seen here. We have extracted 4 carags of good ore from it, and should have broken more, but as we are carrying the upper wall of the vein towards the north side of the level very little of the vein stuff is broken; if this course of ore should continue to improve as it has of late the level will be driven altogether on the lode, but at present I do not think it advisable to do so, as it is so much harder than the country rock (now brown porphyry) that the expense of driving would be very materially increased. I hope soon to be able to carry it on as it deserves, as it is by far the most promising looking piece of ground I have yet seen in the mine. We are now within about 25 varas of the meridian of the shaft, which has cut all the small lodes in good ore, and will, I hope and confidently believe, be equally fortunate when it cuts the main lode.

In the above will not only be seen the substitution of "about" for "full" (which would not have been noticed), but the total abstraction of words which convey considerable and important meanings. Mr. Newton, in his letter, says that he "cannot now perceive the effect of the omission," &c. It is to be regretted that his mental vision has not improved by age and experience; for I knew him many years ago, and although his discernment then was not of the most incisive order, it is evident that it is not much clearer now. Whether Mr. Newton has dealt in the shares or not, is best known to him-

self; but I acquit him of any unaided personal effort to influence the mining market.—Indeed, he would be as much surprised as I should at any manifestations of ingenuity. If he has been frightened at his own acts, by misreading my observation, that arises from the weakness adverted to. My remark was:—"As so much jobbing in shares is reported to be carried on between the officials at the mines and the offices in London, it becomes all interested in the prosperity of mining to suppress such glaring and impure acts." This I repeat—for I did not refer to the Crebtor Mine, but the mines and offices of London generally; and it is, therefore, not improbable that Mr. Newton, reading, as he has quoted, felt some alarm or compunction, and became frightened at his own indication. I do not recollect stating that the lode in the shaft was "all"; for I contend, from the information I have received, confirmed by the best authority, that they have a splendid lode the whole length of the shaft, and with every appearance of improving in depth. But it is true that they are precluded from working whilst the necessary pitwork and shaft are undergoing the requisite alterations. The ore is there, and, perhaps, like Mr. Newton's intelligence, only temporarily obscured. Another point of weakness is apparent in the advantage taken by a little knowledge coming to him through the confidence of the best friends of the mine, and given the dealers who are inimical to the mine a handle wherewith to endeavour to drive down the price of shares. Capt. Secombe values the reserves at 100,000l.; at 25s. per share the mine is selling at 150,000l. Supposing the reserves could be taken away at 10s. in 1l., the mine would be selling for 100,000l. for chances of future discoveries. Capt. Richards, of the Devon Great Consols, and Capt. Roberts, of West Bassett, have inspected the mine this week, and valued the reserves, and it is rumoured that their reports are greatly at variance with the valuation of Captain Secombe. Shares have this week been comparatively steady at about 27l. EAST CARR BREA has been enquired for at 8 to 8½. The sale of ore for the month of April was a good profit. Cross-cuts are being driven at the 50 and 60 north and south respectively, where lodes of great promise, where seen in the adit, will intersect. NORTH CROFTS are in demand. These shares are deserving of attention at present low price; the risk of losing is certainly small, and the chances of gain are great on investment. WHEEL GRENVILLE and EAST GRENVILLE are both holding out good promise of eventual good. CREBTERS are flat at 13½; the speculation in these shares has been completely overdone. At NORTH ROSKEAR an improvement has taken place in the 184 ft. level end west, now worth for copper 20l. per fathom. WEST CHIVERTON is proving one of the greatest prizes that has occurred in Cornwall for some years; these shares are firm at 24½, 25½. The lode in the cross-cut at the 80 ft. level is worth upwards of 50l. per fm.; William's lode, in the 70 and west, 40l.; Elizabeth lode, in the 70 west, 30l. CHIVERTONS, at 7 to 7½, are deserving of notice. In a cross-cut now being put out at the 30 ft. level, lode is expected to be intersected daily; the old mine is in course of being drained to the 80, or deeper level, where good courses of ore are known to exist. A 60-inch cylinder engine has been erected, and there is in hand, for the further development of the mine, a sum of money exceeding 4000l. This mine adjoins West Chiverton to the east, is being worked on the same lodes, and cannot fail to be a success. The time to buy these shares is now, when they can be had for about 7l.; for it is far from improbable that they may shortly double or treble present quotations.

The number of shares into which the mine is divided is the same as West Chiverton—3000. TINCROFTS are very steady, at 21 to 21½. The mine is looking well, and the healthy state of the tin market is likely further to improve the price of shares of this class. STINEY CARRMEALS are firm at 5½. The lode in Bounder's shaft is looking promising for an early improvement. The tin stamps at NEW WENDRON have been set to work, and henceforth regular returns may be looked for. BASSET AND GUYLES are in demand at 22 to 22½. The amount of business being transacted in the Mining Market continues to be on a very restricted scale.

### FOREIGN MINES.

ALDEN AND QUENANGEN MINES.—Estimated produce for May:—

Mines.	Ore.	Per cent.	Copper.
Raipas	.....Tons 22	.....	1-324
Old Mine	.....140	.....	5-600
United Mines	.....15	.....	0-750
Quenangen	.....34	.....	1-870
Total	.....Tons 211		9-540

Mining Report from May 28 to June 11.

RAIPAS.—The working above the 10, on the heavy spar lode, continues to yield remunerative returns, where the veins varies from 12 to 15 in. in width. In the shallow north-west slope the lode is divided into two parts, but each carries good leaders of ore work, together about 2½ tons per fathom. No material change has taken place in other part of the mine. The veins are mostly small in size, but contain rich quality ore, and look kindly.

OLD MINE.—To the north of Pederson's rise our operations are confined chiefly to stoping, where the lode maintains its large size, being from 8 to 12 ft. wide. The stopes below the 5 ft. level have rather improved during the past fortnight, yielding at present 3½ tons of ore per fathom. In the foot stopes joining the rise a band of greenstone has recently been met with, which will apparently divide the lode, but the value of the latter is not as yet affected thereby, which still yields full 4 tons of ore per fathom, and looks well. In the back of the 10 the lode is about 4 feet wide, with bunches of ore work irregularly intermixed, worth from 2½ to 3 tons per fathom. In the 10 south the lode is over 5 feet wide, composed of quartz, calc-spar, and ore work; it is not so rich as about a month since, but there is again an increase of ore, and the matrix is of a kindlier description. The stopes a few fathoms behind this end looks encouraging, where the lode yields 3½ tons of ore per fathom. On the whole, the prospects at this concern continue good. There is no material change to note in Carr's adit, where the stratum continues rather stiff, but the air-machine and pipes recently fixed enable us to progress regularly, so that no hindrance will occur on this account hereafter.

UNITED MINES.—The levels north, and as the indications are favourable we shall drive a short distance further. We have also been opening on this lode near the surface, where, although not rich, it is from 4 to 5 ft. in width, composed of a good looking matrix, with an intermixture of good gossan and yellow ore. The more effectual exploration of this lode by a good shaft on its course from the surface, to communicate with the workings below, would appear a very desirable undertaking. The pitches here and at Woodfall's look much the same as before.

QUARRIES.—Lode E: Scarcely anything has been done in the 20 since our last, the men having been employed to sink in the bottom of the same level on a promising sheet of ore ground, which has yielded about 3 tons of dredge-work per fathom, but the water here is troublesome. The 15 ft. level stopes has deteriorated, the lode being hard, and the ore highly disseminated. In the bottom of the 10 (recently begun) we are raising some good work, where the lode is 1½ ft. wide, with purple ore intermixed. In the 10 west the lode is somewhat irregular in its dip, but looks more kindly than before, especially in the bottom of the level, where there is now a leader of yellow ore 8 in. wide, nearly solid, but it must be further developed before an opinion can be formed of its value.

The adit at lode A is not yet broken through to the stopes, but the distance left is short. The Eastern lode still looks well, being 5 ft. wide, with 4 tons of ore per fathom. We have not yet been able to do much at the surface, but the weather has now set in beautifully fine.—CHARLES TRELAKE.

COPITAPO.—June 15: Checo Mine: In the 60, east of Price's shaft, the lode in No. 2 chifon, sinking west, is much the same as when last reported. The 60 ft. level stopes are still producing from 6 to 7 tons of 28 cent. ore to the fathom—a good lode of ore. In the 50, at No. 2 chifon, sinking west, the lode is 3 feet wide, 1 foot of which is ore of about 15 per cent., looking very kindly. The 60, on No. 1 chifon, is poor, and stopped. In the eastern new ground, in this chifon, the lode is still poor.—Western Sett: All operations at the shaft we shall stop, the times being so bad; the 10 we shall stop also. In the western new ground the lode in the chifon is much the same as when last reported. Account of ground sunk by the vass in April:—The 60, at No. 2 chifon, has been sunk 10½ fms. by three men, at 28s. per vara. The 60, at No. 1 chifon, has been sunk 5½ fms. by two men, at 20s. per vara. The 60, at No. 2 chifon, has been sunk 6½ fms. by two men, at 20s. per vara. The eastern chifon has been sunk 5 fms. by two men, at 20s. per vara.—Total, 27½ fms. Number of men employed in April:—Englishmen, 12; natives, 63;—Total, 75.—G. MATTHEWS.

MARIQUITA AND NEW GRANADA.—Santa Ana Mines for the month of March:—Cost, 812,905; returns, 200,188.—Marmato Mines: No advice. The lode in the stopes in bottom of the 110 is about 7½ ft. wide, producing rich dry stamps mineral. The stopes are three in number: 15 men are employed in working them, who have stopped out 5 fms. 0 ft. 5 in. In the stopes in back of the 110, north of winze, the lode is about 7½ ft. wide, producing rich dry stamps mineral; stoped 2 fms. 4 ft. 6 in. In the stopes in back of the 90, north of flookan, the lode is about 2 ft. wide, producing good wet stamps mineral; stoped 1 fm. 2 ft. 6 in. In the stopes in the bottom of the 100, north of winze No. 3, the lode is about 5½ ft. wide, and very rich throughout for dry stamps mineral. In the stopes in the back of the 100, south of flookan, the lode is about 3 feet wide, producing good wet stamps mineral; stoped 5 feet. The new shaft is enlarged 1 fm. above the 100 last month, and also sunk



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being drained to within 3 feet of the bottom of the level, and, in a day or two, the water in the bottom level will be completely clear. When we had drained the water to near 18 ft. below the edit, our supermen thought they could see the back of the cross-cut, which now turns out to be nothing more than the shaft being enlarged from that place downwards. It now runs out to the east of the shaft is 50 ft. deep below the edit, and we were well pleased with all our information. The shaft proves to be equally true. Yesterday we were enabled to examine the lode at a 20 ft. level below the edit. To-day we have cleared to that depth, to the east of flat-rod shaft; this 6 m. level appears to have been driven from another shaft to the east, and only extended about 4 ft.







connected them to the new engine. The 20 ft. level, west of cross-cut, is worth 101. per fathom, and the 10 ft. level, east of cross-cut, is worth 91. per fathom. These are all the bargains we can value today, the remainder being under water.

**FENRILL.**—Capt. Jenkins, June 23: We are busy at the shaft, six men have been constantly employed in it, well as being an expensive as a dangerous job, but I am happy to tell you it is now completed and well secured. We have dropped the new lift down 11 fathoms, and have hauled up eight of the old pumps, besides a great quantity of old timber, but from the fact that it was poor timber at first, and has stood there for some time, it is quite useless for further purposes. Down 10 fathoms deep we found a place in a convenient place to begin our cross-cut. To-day is the first day of our month, and the Cornishmen who were working in the shaft desired to have the cross-cut let on bargain, I set it to-day, after a hard contest, and they told me a former captain had paid 154. per fathom for a cross-cut in the same ground; I have set them this at 77. per fathom, and find them tools, they finding materials, powder, fuse, &c. I have measured the ground, and find the cross-cut will be about 14 fms.; this will take about four months to cut the level, if all goes well. The other two men employed in the shaft I have put to stop further north than the old stop; the stop looks very well, yielding, I should say, from 15 to 18 cwt. per fathom—it is impossible to say precisely, as we have not drawn any stuff. There are four men working here, all on lead. The old stop is nearly finished, and we shall have to secure it with timber before we can get any more lead there. The surface works are progressing favourably, our dressing pare are employed daily, and our two round buddies are at work constantly dressing the silice ore. We shall soon get 20 tons ready for the market.

**FENTRE LYONS.**—H. Evans, July 1: We continue to sink the shaft, and making fair progress, with twelve men.

**FRIDEAUX WOOD.**—F. Puckey, J. Puckey, June 22: In driving the 64, east of Kendall's shaft, the level during the past month has been very small, having intersected another part of the cross-course; to the east of this cross-course the level is again opening, and is now 1 ft. wide, letting out more water, but still unproductive.

**PRINCE OF WALES.**—W. Gifford, June 30: Saturday last being our setting-day, the following bargains were set:—The new shaft on Drake Wells level, to sink below the 16 by six men, at 121. per fathom. The deep adit on Good Luck level to drive east by four men, at 81. 5s. per fathom. The tributaries will send their stuff to surface by the end of another week.

**POLHIGEE MOOR.**—S. Bennetts, July 1: The level in the east shaft has improved, 6 in. of which in the west and will produce from 2 to 3 cwt. of tin to the ton of stuff. In the east end of the shaft, which is close by the cross-course, it is not so good. The caunter level, in the south shaft, is without alteration. In opening on the back of the engine level, near the junction of No. 2 caunter, 5 fms. from surface, we found a portion of the level remaining, which proved to be very good, and its width about 3 ft. We hope to find the old bottom here in the course of six weeks, where I think it very likely a good level will be found. Both tributaries and workmen from the Lead-an-chase level during the past month have produced an average of 1/4 cwt. of tin to the ton.

**PROSPER UNITED.**—S. Lean, W. H. Martin, July 2: The level in the 70, west of Louisa's diagonal shaft, is 4 ft. wide, and will produce 4 tons of ore per fathom. The level in the winze sinking below the 60, west of this shaft, will produce 6 tons of ore per fathom. We have in the present week communicated the 60, west, on the north part, to Hill's shaft. The level at Hill's shaft, sinking below the 60, is 3 ft. wide, containing saving work for tin. The level in the 60, west of Hill's shaft, is 2 ft. wide, opening tribute ground for tin. In the 50, west of Hill's shaft, we have intersected the cross-course, which has disordered the level. The level in the winze sinking below this level is worth 71. per fathom. The level in the 60, east of Louisa's shaft, is 2 1/2 ft. wide, of a promising appearance, and contains good stones of yellow copper ore. The level in the 50, east of the last-mentioned shaft, is 2 ft. wide, worth 51. per fathom. The ground in Hosking's engine shaft, sinking below the 70, is without alteration since our last report—down 8 fms. The level in the 60, east of Hosking's shaft, is 3 ft. wide, and looks more promising for producing mineral than for several fathoms past; it contains copper and tin, but not sufficient to value.

**REDMOOR.**—T. Taylor, July 1: The ground in the 60 east, on Johnson's, is a little better, and the level yielding some good stones of ore. The level in the 50, east of 2 ft. wide, worth 51. per fathom; the level in the 40, east of 2 ft. wide, worth 51. per fathom; the level in the 30, east of 2 ft. wide, worth 51. per fathom. No alteration in the tribute pitches.

**ROARING WATER.**—Capt. Thomas, June 30: Since I wrote last I have employed several hands to remove a large piece of surface, lying on what I consider the main or principal part of Grady's level, south of the open cut, and this day the back of the level was hit on; and I am glad to inform you that for many years I have not seen richer copper ore; it is of a very peculiar character, which is rather difficult to describe; however, I send by this mail a small sample of it, which will speak for itself. This is the identical spot where I recommended in a former report to have the shaft sunk. There is no particular change in the level, the level is as reported last week. In driving well for the production of rich copper ore, however, we shall not be able to do much on these levels until the new shaft is sunk on Grady's level, which I hope will be fully arranged this week by Capt. Taylor and myself.

**ROSEWANE UNITED.**—Thos. Richards, E. Carthew, July 2: The engine-shaft is sinking below the 10 ft. level. In the 10 ft. cross-cut, driving north, the ground is good for making progress. The second winze sinking below the trial level, east of boundary shaft, is looking pretty well; the level is 2 ft. wide, worth 71. per fathom. The 10, driving east and west of first winze sunk under the trial level, is worth 61. per fathom. No alteration in the adit driving west of Butler's old mine. In dressing the copper ore broken under the trial level, the level is opening quite as was expected, and we think it is likely that we shall sample from this place about 50 tons of copper ore on the 28th inst.

**SMITH'S WOOD.**—W. Hosking, July 2: The level in the engine-shaft presents the same appearance that it has during the last 3 fms. sinking; it is 3 ft. wide, producing moderate saving work for tin, with occasionally, very rich stones of copper. The ground is very hard, but as we have nearly sunk to the 34, where we shall commence driving. I hope to be able to make greater progress in extending the levels, and thereby proving more fully the value of the level.

**SILVER MOUNTAIN.**—C. Williams, June 30: The masons are progressing with building the crumple, and engine-house, the walls of which are being built 4 ft. above the surface, and are all made of the best material. The bed for the engine is complete, and we are waiting for the engine, which I hope will be forwarded without delay. The pumping-wheel is completed, and everything connected to the pumping machinery is in a forward state, so in a short time we shall have this part of our machinery in motion, when we shall proceed with sinking Blue shaft.

**SILVER VEIN.**—E. Barr, June 2: The engine-shaft is down to the 40; we shall sink about 3 ft. more for a fork before casing and dividing the shaft, to get down the whim-kibbles, which will be pushed on as fast as possible. In the 30 north we have 4 fms. 2 ft. more to drive to reach the level, as is reported last week. In the level sinking in back of the winze, working by six men, the level has been unproductive for the last piece taken down. The tribute department during the past week has improved a little; we have no other change in the mine to notice this week.

**SORTBRIDGE CONSOLS.**—R. Jackson, July 2: In the 50, west of ventilating shaft, the level is 9 ft. wide, composed of muddle, capel, prlan, and stones of ore. In Stanton's stop in back of the 50, west of Mayne's cross-cut, on No. 2 south level, the level is 1 1/2 ft. wide, worth 1 ton of good ore per fathom. In the 40, west of John's cross-cut, on No. 2 south level, the level is 2 ft. wide, yielding good stones of ore. In Stanton's cross-cut north of the 50, east of east winze, the ground is easy for progress. In the 40, west of Gilbert's cross-cut, on No. 1 tin level, we have intersected a cross-course; no level has been met with west of it yet. In the 40, east of Gilbert's cross-cut, on No. 1 tin level, the level is 2 ft. wide, yielding good stones of tin. In the 30, east of Pellow's cross-cut, on No. tin level, the level is 2 1/2 ft. wide, producing a little tin. No change to notice in any other part of the mine.

**SOUTH BULLER.**—J. Hosking, June 27: Having found it impracticable to put in a skip-road in Hodge's shaft, the shaftmen have been employed in the past week in dividing, casing, and bed planking in such places as required, to better draw with kibbles. We have completed it to the 40, and expect to finish it and draw from the 50 in another week. The level in the 40, west of Hodge's shaft, is 10 in. wide, composed of quartz and muddle. In the 40, driving west of Hodge's shaft, the level is 1 ft. wide, and worth for copper from 31. to 41. per fathom. The level in the winze in bottom of the 40 is about 8 in. wide, and worth for copper from 51. to 61. per fathom. In the 24, driving west of Hodge's shaft, the level is 15 in. wide, and worth for copper 81. per fathom. In the winze sinking in bottom of the 24, west of Hodge's shaft, the level is 10 in. wide, and worth from 61. to 61. per fathom. The 12 is cleared east of engine-shaft about 50 fms.

**SOUTH CARADON WHEEL HOOPER.**—Wm. C. Cook, June 27: The 90 cross-cut is re-set at 181. per fathom. The character of the ground is precisely the same as described in former reports, being a compact clay, the bands or joints of which are coated with fluor and muddle. The whim drawing is re-set at 7s. per fathom.

**SOUTH DAREN.**—J. Bondy, June 30: Saturday last being our outwork setting-day, the following bargains were set:—To stop the back of the 50 east by six men, at 31. 10s. per fathom; the level is 3 ft. wide, valued at 10 cwt. of ore per fathom. As soon as the stop is high enough to put in a still the end will again be resumed. To stop the back of the 70 east by four men, at 31. 10s. per fathom; the level is 2 ft. wide, valued at 12 cwt. of ore per fathom. The 60 to drive east by four men, at 61. 10s. per fathom; the level is 4 ft. wide, composed of a beautiful clay-slate, carbonate of lime, and lead and copper ore—dressing work. The level at this point has been set and draw from the 50 in another week. To stop the back of the 60 east by four men, at 70s. per fathom; the level is 3 ft. wide, valued at 10 cwt. of ore per fathom. The 40 to drive west by four men, at 61. per fathom; the level at this point is about 18 in. wide, of a most favourable character; we shall take a level here this week. The 30 to drive west by six men, at 71. per fathom; the level here is not quite so large as last reported; present value 12 cwt. of lead and 10 cwt. of copper ore per fathom, and showing indications of improvement. To stop the back of the 30 west by four men, at 70s. per fathom; the level is 2 ft. wide, valued at 25 cwt. of copper and 6 cwt. of lead ore per fathom, for 2 fms. in length. The 20 to drive west by four men, at 61. 10s. per fathom; the level is 15 in. wide, and worth for copper 81. per fathom. As soon as the stuff is cleared out from the end we shall at once take down the level. The machinery is all in good working order.

**SOUTH DOLCOATH AND CARNARTHEN CONSOLS.**—W. Roberts, June 30: In the rise in the back of the 50 the level is 2 ft. wide, producing 2 tons of ore per fathom. In the flat-road shaft, sinking under the 12 ft. level, the level is 2 ft. wide, producing 1 1/2 ton of ore per fathom. In other parts no improvement to notice.

**SOUTH EXMOUTH.**—J. F. Nicholls, G. Maander, July 1: The 60 cross-cut is extended about 11 fms. from shaft; it has recently passed through some small branches, the same as in the 45 before cutting the level, but improved in appearance, and containing stones of lead. We have not, however, intersected what we believe to be the main part of the east level, with stones of lead on the east wall, but we shall not be able to report its size and value for some days, in consequence of its letting out so much water as to make it very spare for cutting through. The engine is now being driven ten strokes per minute to keep the coming water, but this will subside in a few days when the ground is drained. We had a similar influx of water when the level was cut at the 45, which fell off in about a week. The west level in the 45 end north is 3 ft. wide, containing stones of ore, but not sufficient to value. The stopes in back of this level, north of Roddy's level, yield 6 cwt. of lead per fathom. Rundle's stop, in back of Roddy's level, will yield 6 cwt. of lead per fathom. The 45 end south is without change since last report; the level still consists of a beautiful gossan. The same remark will apply to the 30 south.

**SOUTH HERODSFOOT.**—July 1: During the past month the ground in the engine-shaft has been hard and troublesome. Our progress, consequently, has been slow. At present the ground is much easier. We shall have the clister in by Saturday next, and be in a fair course of sinking. Just below the 24 a small east and west branch crossed the shaft, which contained muddle precisely similar to that found in the adjoining mine. We are driving the cross-cut westward, so as to take up what water we can, in order to ease the engine. The level is down 43 fathoms from surface.

**ST. JUST CONSOLS.**—J. Carthew, W. Williams, July 2: Since our last report the works throughout have been going very satisfactorily. We are glad to inform you that the stamps are doing duty to our entire satisfaction, and we believe it is a most excellent machine. The tin dresser and five assistants are preparing the dressing-floors for ties, frames, round-buddies, &c. All our underground operations continue to look well. The guide and river level presenting very favourable appearance have induced us to put two men to extend the deep adit level west on Casley's level. There is a level in the end now 3 feet wide—tinny throughout, and in a few days we shall put two men to clear the mill adit level on another level. On the whole, these mines are looking well indeed.

**ST. JUST UNITED.**—J. Carthew, July 1: Our sumpmen are still engaged cutting down ground in the engine-shaft for the skip-road. We have got a long run of tin and copper ground east and west of this shaft, which I am anxious to make available, and I am pushing on our work with all possible dispatch, so as to get our steam whim to draw at this shaft. The masons began the engine-house yesterday. At the north level shaft we have cut a new level, driving from the 60; we have discovered good tin ground holding down in bottom of this level. Six men are clearing the level east and west. Saturday next being our setting-day, I hope to set three or four tribute pitches in back of this level. Wheel Owl level, in the adit level, is looking well. The mine throughout is looking well, and we shall break more tin this month than in any preceding one. With the additional boiler our engine is doing excellent duty, drawing the 45 heads of stamps much more satisfactorily than before.

**TRELOWETH.**—T. Richards, July 2: The engine-shaft is sunk below the 154 ft. level 10 ft.; the level contains stones of copper ore. The 154 end is driven about 6 1/2 fms. east of shaft; level worth 61. per fathom. In the 144 end, driving north through the level, we have not yet cut the north wall. In the sump-winze, sinking below the level, the level is worth 201. per fathom. In the rise above the 134 the level is worth 71. per fathom. The ground in the 60 cross-cut, driving north, continues favourable for exploring, and it would be a desirable point to see the north level cut in this level, which may occupy nearly three months to accomplish. In the 15 end, driving west of Carr's shaft, the level contains much muddle. The pitches are looking much as usual for yield of copper ore.

**TREVENEN AND TREMENEER.**—J. Madien, Wm. Tippet, July 1: We have cut down 6 feet of the new sump-shaft, and divided 3 fms. of it, and put a pump on the lift ready for sinking. The 130, west of this shaft, is cleared, or nearly so, and will be driven again a few days. No. 1 stopes the back is worth 101. per fathom. No. 2, 71. per fathom. The 110, on south branch, is poor; the men are put to stop the back, where the level is worth 61. per fathom. No change to notice in both old stopes in the 70. The stop-in in the 120, the cross-cut, in ditto, and clearing ditto to work a chain through to drain the mine to bottom are all going on well. The men repairing Trevenen engine-shaft below the run, those clearing the 100 in middle of run, and the pare going down through it, with those clearing the 40 east, and the men sending up old pitwork, and repairing upper part of this shaft, are all progressing favourably. We are glad to say we believe we shall be enabled to restore the mine again within the time stated heretofore.

**TRIMILL.**—H. L. L., July 1: We are getting on very well with the excavations for the engine-house, &c.

**TRUMPET UNITED.**—G. R. Odgers, June 27: The level in the engine-shaft, sinking below the 50, is 8 in. wide, and producing a little tin. The level in the 50 west is from 1 ft. to 18 in. wide, of muddle, spar, and peach, with good stones of tin—a kindly level. The level in the 38 and 25 west is small. The level in the 15 west is 6 in. wide, and producing good tin, worth 71. per fathom. The level in the stopes above the 15 ft. level west is worth 61. per fathom.

**TYDDYNGWADIS (SILVER-LEAD AND GOLD).**—George Williams, June 29: Adit—No. 1 shaft. Our progress in sinking on this for the month is 3 fms. 1 ft. I am glad to say that the ore continues as last reported. Adit, No. 2 shaft. Our progress in sinking on this for the month is 4 fms. 1 ft. the ore here has improved, being more compact. Adit, No. 3 Level Rise. Our progress for the month is 3 fms. 3 ft. 3 in., being obliged, on account of the air being foul, to make about 2 fms. cross-cut to No. 1 shaft for ventilation; I am glad to report that we have splendid ore here. Cwmbelesan level, No. 2 Adit. Our progress in driving is 1 ft. 4 in. 9 in.; I am glad to report that the level here has greatly improved in size and richness, and according to present appearances I hope to have the pleasure of reporting more favourably in my next. At surface we are going on with the haulage and spalling, so as to keep room.

**TYNE HEAD.**—G. Millican, July 2: We are still cutting across Sir John's vein and have met with no wall or check. I have to-day let the driving of the adit level 10 fms. into or through the great sulphur vein, or backbone, at 191. 15s. per fathom.

**TYWERNHALL.**—J. Nicholls, J. Daw, T. Hampton, July 1: The 100, east of Bennetts, will produce 3 tons of ore per fathom. The 90, east of Bennetts, is worth about 2 tons of ore per fathom. The 80 east is poor. James's shaft is yielding from 2 to 3 tons of ore per fathom. Haynes's shaftmen are engaged cutting bearer-holes, &c., to fix the drawing-lift. No change in the bottom of the shaft. The 70, west of Haynes's, will now produce 1/2 ton of ore per fathom. The pitches are yielding about their average quantity of ore. **UNION.**—DOLFEY WOGS (Gossan and Corran).—George Williams, June 28: Bog shaft. For the most part of the month the men were employed in timbering and fixing pumps, and what we drove was in the north end of the shaft, so as to have enough space before fixing the lift; this being done, and pumps set in, the air being very foul, we are compelled to make pipes; these we shall proceed to make with all possible haste. We have been delayed more than I anticipated we should, before seeing the wheel at work; but I expect to see it working this week. Penbryn Mine. Our progress in driving on this for the month is 6 fms. 1 ft. 7 in.; I am glad to report that we reached the level last week, which is 2 ft. wide, and composed of quartz, flookan, and muddle, promising well for good tin. The level in the 30, west of the level, during the past week, has been a fair trial; the level is strong, and full of life.

**VALE OF TOWY.**—A. Waters, T. Harvey, July 1: In the 124 fathom level, south of engine-shaft, the level is 2 ft. wide, composed of clay-slate and stones of blende ore, but not to value; ground getting after daily. The blende pitches in the back of the 110 south yield blende in profitable quantities. Those in the 100, 90, and 80 south are all being worked at a profit, tributaries doing well at low tributes. The level in the 20, north of Bonville's, is 18 in. wide, producing good saving work for lead ore, and letting out a strong feed of water; the lead pitches in this part of the mine are worth, on average, 11 cwt. per fathom. No change in adit south of Sant since our last report. We have forwarded 30 tons of blende per rail to Swansea, and have weighed 40 tons dry, to be shipped per *Asia Maria*, for same place to-morrow, and are now loading a cargo of barytes, per *Active*, for Liverpool. We hope to engage another vessel to take a cargo this week.

**WENDRON CONSOLS.**—J. Taylor, July 1: At the engine-shaft we have cut ground for and fixed bearers and clister, and the men are now engaged sinking below the 45. The 45, west of the engine-shaft, is for the present suspended, and the men are now engaged sinking below that level at Bal Dees engine-shaft. The engine level, in the 45, east of Bal Dees, is 2 ft. wide, yielding work of low quality; driving by two men, at 61. per fathom. The engine level in the 19, east of Bal Dees higher shaft, is without any change since last report; driving by two men, at 21. 10s. per fathom. Hill's shaft is set to sink below the 90, by eight men, at 171. per fathom. The 90, west of Hill's, is suspended, and the men are engaged rising towards the winze sinking below the 80. The level in the rise is worth about 161. per fathom. The level in the 90 is getting more settled as it leaves the cross-course, and yielding stones of tin, but not to value; driving by two men, at 71. per fathom. Flander's level, in the 80 east, is 2 ft. wide, and worth 81. per fathom; driving by two men, at 71. per fathom. A rise is being put up east of Hill's, in the 40, by two men, at 21. per fathom; level small, but yielding stones of tin. The 72 is set to drive east of Bishop's shaft, by six men, at 131. per fathom; level small, but yielding stones of tin; driving by two men, at 21. 10s. per fathom. The 72 is set to drive west of the shaft, by four men, at 121. per fathom; level 2 ft. wide, saving work for tin. The engine level in the 62, east of Bishop's shaft, is 2 ft. wide, worth 121. per fathom; driving by six men, at 101. per fathom. The 62 is set to drive east, by four men, at 101. per fathom; level 2 ft. wide, worth 81. per fathom. The rise in back of this level, and the winze in the 42, are holed, and the men are now stopping both east and west of the same. The stopes east of the winze, in back of the 52, is worth 121. per fathom; stopping by six men, at 51. per fathom. The stopes in the west end of the winze is worth 141. per fathom; stopping by six men, at 51. per fathom. The eastern stopes, in back of the 42, is worth 71. per fathom; stopping by six men, at 51. per fathom. The western stopes of the same level is worth 71. per fathom; stopping by four men, at 51. per fathom.

**WEST BASSET.**—Wm. Roberts, June 30: In the 124, east of Grenville's shaft, the level is nearly 2 ft. wide, of a promising character, although at present not producing any ore. In the 114 west the level is 2 ft. wide, with occasional stones of ore. In the 104 east the level is 3 ft. wide, good tribute ground. In the winze sinking under the 94, to come down on the 104 and east, the level is 3 ft. wide, producing 2 tons of ore per fathom. The 94 west produces good stones of ore; the level is 3 ft. wide. In the winze sinking under the 84 the level is 3 ft. wide, producing 1 ton of ore per fathom. In the 78 west the level is 3 ft. wide, producing stones of good ore, and is likely to improve. The 52 west produces stones of ore; the level is 2 ft. wide—tribute ground.

**WEST BEAM.**—Wm. Hosking, July 2: We are continuing the driving of the 65 end west, in which the level is 2 ft. wide, the whole of which is saving work for the stamps. The 35 west, on South Beam level, is also being driven with great dispatch; the ground is of a very favourable and congenial nature, and the level 2 ft. wide, is moderate work, and will let on tribute. The clearing of the 35 east of engine-shaft, on North Beam level, is resulting very satisfactorily. This level had been crushed together for the last 15 years. We have cleared many fathoms of it, and find the ground to be of a good quality. The 35 west, on South Beam level, is also being driven with great dispatch; the ground is of a very favourable and congenial nature, and the level 2 ft. wide, is moderate work, and will let on tribute. The clearing of the 35 east of engine-shaft, on North Beam level, is resulting very satisfactorily. This level had been crushed together for the last 15 years. We have cleared many fathoms of it, and find the ground to be of a good quality. The 35 west, on South Beam level, is also being driven with great dispatch; the ground is of a very favourable and congenial nature, and the level 2 ft. wide, is moderate work, and will let on tribute. The clearing of the 35 east of engine-shaft, on North Beam level, is resulting very satisfactorily. This level had been crushed together for the last 15 years. We have cleared many fathoms of it, and find the ground to be of a good quality.

**WEST BRYLLS.**—J. Curtis, J. White, June 30: The deep adit is driven west of cross-cut about 25 fms., and is in the elvan course; the level is 2 ft. wide, with spots of copper ore in it, and by driving this level 3 fms. further it will be through it, when a great improvement is expected. The deep adit is driven west of Trevelyan shaft, on the north tin level about 18 fms.; the level is 18 in. wide, with rich stones of tin in it, and looking kindly. The deep adit, on Hosking's level, is driven west of boundary shaft about 5 fathoms; the level is 14 in. wide, with spots of yellow copper ore in it. The 25 ft. level is driven west of Trevelyan shaft 10 fms.; the level is 9 in. wide, yielding tin stuff of low quality. The 15 ft. level is suspended for the present, and the men are now rising against a shaft for ventilation and discharge of stuff; the level is 12 in. wide, with tin in it, but not much to value. The tribute department throughout the mine is much the same as for some time past. Tin sold July 20, realised 351. 17s. 8d.

**WEST PAR CONSOLS.**—W. Woolcock, July 2: Dawke's shaft, sinking below the 65, is progressing favourably, the level in which is 1 1/2 ft. wide, in a disordered state at present, caused by the intersection of a small cross-course; it is composed of capel, peach, and spar, intermixed with kille, causing drizzle tin, but no value. The level in the 65 end east is from 1 1/2 to 2 ft. wide, of a promising character, producing 1 1/2 cwt. of tin to the 100 sacks, with good stones of copper ore on the north part. The slope in the back of the same level is not looking quite so well as when last reported. The level is split up and in a disordered state, consequently it is of little value at present. I have put the men to take up some level in the bottom of the level, under the stopes, and find it contains good stones of tin, but cannot sink in the bottom until the water is drained, which, I calculate, will be as soon as the level becomes settled in the shaft; the water will then drain to the bottom of the shaft, and we shall be enabled to sink in the 65 as fast as the shaft goes down. The level in the 30 end east is 1 1/2 ft. wide, composed of capel and spar, containing tin, but not to value. The tribute department is without alteration since last reported, and the machinery is working well.

**WEST SHARP TOR.**—Wm. Richards, June 30: There is no change to report in the 162 west since last week. The ground in the 162 east continues equally favourable for progress. The ground in the adit level is very good; water percolates freely from the bottom of the end.

**WEST WHEEL TREVEYAN.**—G. R. Odgers, J. Harris, June 28: Charles's shaft to sink below the 58, by nine men, at 201. per fathom; level from 3 to 4 ft. wide, and producing good ore, yielding about 1 ton of ore per fathom; this level has very much improved during the last 16 ft. sinking, which is a pleasing point. The stopes below the 58 west, by six men, at 41. per fathom, level large, and yielding good ore, worth from 61. to 81. per fathom. The 58 west, by six men, at 41. per fathom; level full 3 ft. wide, and yielding some very good ore; we are of opinion that this level will improve more in a short time. The rise above the 58, west of cross-course, to six men, at 61. per fathom, which is rising on the south side of the level; we calculate to hole this in a week or ten days, when we hope to lay open a piece of ore ground. A stopes above the 58, west of Charles's shaft, to four men, at 21. 5s. per fathom; level worth 31. 10s. per fathom. A stopes below the 48, east of Charles's shaft, by two men and six men, at 31. 5s. per fathom; level worth 31. per fathom.

**WHEAL.**—J. F. Roberts, June 29: On Friday last the following outwork bargains were set:—Driving the 100, east of Windstow shaft, by six men, at 61. per fathom; the 100 west by six men, at 121. Sinking the western shaft under the 90 by nine men,

at 251. Driving the 90 cross-cut, south of the western shaft, by four men, at 81.; the 90 north by four men, at 81.; the 90, south of Windstow, by four men, at 71.; the 90 west by two men, at 61. Sinking a winze in the 90 east by four men, at 71. Driving the 90 east by four men, at 61. Sinking a winze in the 80 west by four men, at 81. 10s. Driving the 70 west by four men, at 81.; the 70, east of western shaft, by four men, at 41. 10s.; the 60, west of cross-cut from Windstow shaft, by two men, at 41.; the adit west of winze-shaft, by two men, at 81. 10s.; the adit east by two men, at 61. per fathom.

**WHEAL ARTHUR.**—T. Carpenter, July 2: There is no particular alteration in the mine since my last week's report. We are pressing on with every point of operation as fast as possible.

**WHEAL CREBOR.**—J. Gifford, June 30: On Saturday morning the gudgeon of the shaft-bob broke, which we repaired, and set the engine to work again on Sunday evening, about 7 p.m. In the 84 east the level is 5 ft. wide, composed chiefly of capels, quartz, muddle, and copper ore, yielding of the latter 1 1/2 ton, or 81., per fathom. In the 84 west the level is 7 ft. wide, composed of capels, quartz, muddle, and copper ore, yielding of the latter 5 tons, or 301., per fathom. In the 72 east the level is 2 1/2 ft. wide, composed of a mixture of capels, killeas, and spar, with occasionally stones of muddle and copper ore, but of no value. No alteration in the tribute department. The water is in, and the men commenced working in both ends in the 84 early this morning. The new gudgeon for the bob, together with the cost of labour putting it in, will not exceed 61.

**WHEAL GRENVILLE.**—G. R. Odgers, Wm. Bennetts, June 27: The 130 to drive west, by six men, at 41. per fathom; level from 18 in. to 2 ft. wide, and producing some good stones of ore. The 110 north, by four men, at 101. per fathom; here we are expecting the level that we had in the 100. The level in the 100 west is full 4 ft. wide, and producing good work for tin, worth from 151. to 201. per fathom; driving at 41. 10s. per fathom. The rise above the 100 west, to four men, at 41. 10s. per fathom; level full 4 ft. wide, and worth 101. per fathom. The 90 west, to four men, at 31. 10s. per fathom; level full 4 ft. wide, yielding splendid work for tin, worth about 301. per fathom. The 90, east of intersection, to four men, at 11. 15s. per fathom; level from 3 to 4 ft. wide, and worth from 101. to 151. per fathom. The 80, west of the intersection, to four men, at 71. per fathom; level full 3 ft. wide, worth from 151. to 201. per fathom. The rise above the 70, to four men, at 101. per fathom; level producing some very good ore. The 66 west, to six men, at 51. 5s. per fathom; level from 8 to 10 in. wide, improving, and yielding 1 1/2 ton of ore per fathom; this we are hurrying on with all dispatch, in order to get over the 80 end and rise. North Level: The shaft to sink below the 60, by six men, at 201. per fathom; level from 3 to 4 ft. wide, and producing some very good work for tin, worth from 101. to 151. per fathom. The level in the stopes above the 80, east of cross-cut, is full 3 ft. wide, and producing some very good tin, worth 81. per fathom; stopping by four men, at 21. 10s. per fathom. The 80 cross-cut, north of the north level, to six men, at 121. per fathom; the ground is looking very congenial for the production of ores, and which we are hurrying on as fast as possible. The rise above the 66, against the new shaft, to six men, at 61. per fathom. The new shaft to sink below the 12, by six men and three labourers, at 81. per fathom. The pitches are set at the same tributes as before.

**WHEAL GRILLIS.**—E. Rogers, J. Pope, July 2: There is no alteration worthy of notice since we sent you the report for the general meeting, and will send you a setting report next week.

**WHEAL HARRIETT.**—S. Williams, June 27: The level at the engine-shaft is small and unproductive. The level in the 130, east end, is 6 in. wide, poor. The level in the winze below the 115 is 6 in. wide, producing occasional stones of tin. The stopes west from east winze, below the 100, is worth for tin 701. per fathom. The level in the stopes east from west winze is worth 151. per fathom. Alexander's level, at the shaft, is producing stones of copper ore, but not to value. The level in the 12, east end, is still in disordered ground, and nothing in it to value. The level in the adit, east end, is 9 in. wide, producing stones of ore. The stopes above and below level are worth about 81. per fathom.

**WHEAL HEARLE.**—W. Wesley, June 30: Setting Report for July. The skip-roads to fix all complete from the 50 to the 90, by four men, at 8s. per fathom. The shaft to open through the old workings from the 90 to the 100, by two men, at a contract of 51. The skip-shaft to sink under the 110, by four men, at 51. per fathom, for the length of shaft; in this bargain we have 1 fm. more to sink to communicate the stopes from the level below; sinking under the 122, by six men and three boys, at 91. per fathom. The 122 end to drive south, by three men, at 71. per fathom. The 122 to drive west, by four men, at 41. per fathom; in this end we have a large promising level, and hope to value it next week. The 110 winze to sink by four men, at 10s. per fathom; level 3 ft. wide, worth 91. per fathom. In back of the 110 fm. level three pitches are working by six men, at 131. per fathom. The 90 to drive west, by two men, at 31. per fathom; level 1 1/2 ft. wide, poor. The 80 is suspended for the month, to stop the back and put in solar for ventilation. The 70 to drive west, by two men, at 21. 10s. per fathom; level 2 ft. wide, saving work for tin. The 60 cross-cut to drive south, by two men, at 91. per fathom.

**WHEAL HOPE.**—W. H. Reynolds, June 30: We are working below the 58, and hope to see the 68 in three or four days. The level in the 58 and 48 fm. level ends west is looking better, and likely to improve. The pitches are much the same as for some days past, and we have 10 tons of lead to offer for sale in about a fortnight.

**WHEAL KITTY.**—R. Pryor, June 27: Engine shaft. We are dressing the level in the 100, east of this shaft, consequently no level has been taken down since last report



- With next week's Journal we shall give a SUPPLEMENTAL SHEET, in which will be published Papers on Our Railway System—its Early History; the New System of Geology; Mines, Mining, and Smelting in South Australia; the Quarterly Returns of Sales from the English and Foreign Mines in Cornwall and Swansea; the Tin Deposits of Bolivia; On the Liberation and Drainage of Gases from Coal Mines; Money Making, &c., &c.
- With last week's Journal a SUPPLEMENTAL SHEET was published, which contains—Papers on a New Substitute for Silver; Metallic Magnesium—a New Element; Description of Improved Machinery for Crushing, Grinding, and Amalgamating Quartz, Quartz-Tailings, and other Auriferous Earth, Copper, and Silver Ore, &c.; Treatment of Gold Ores—New Processes; Money Making—No. VI.; Foreign Mining and Metallurgy. Meetings of Public Companies—West Caradon, East Wheel Martha, East Carn Brea, North Miners, Great Northern of South Australia, &c.
- With the Journal of June 20 we gave a SUPPLEMENTAL SHEET, in which appears Papers on the Introduction of the Railway System: its Early History in the Southern Counties; Money Making; Foreign Mining and Metallurgy; The Tin Trade; An American Monster Furnace; Meetings of Public Companies—National Provincial Bank of England, Kapunda Mining Company, Gawton Copper Mining Company, Clarendon Consolidated Mining Company of Jamaica, Great Wheel Vor United Mining Company; The Carboniferous Deposits of the Staffordshire Moorlands; Treating Copper Ores, &c.

### The Mining Market; Prices of Metals, Ores, &c.

METAL MARKET—LONDON, July 3, 1863.		
COPPER.		
Best selected, p. ton	95 0 0	—
Tough cast, p. ton	92 0 0	—
Tin, p. ton	92 0 0	—
Burra Burra, p. ton	90 0 0	—
Copper wire, p. lb.	1 0 0	—
ditto tubes, p. lb.	1 0 0	—
Sheeting & bolts, p. ton	99 0 0	—
Bottoms, p. ton	104 0 0	—
Old (Exchange), p. ton	85 0 0	—
IRON.		
Bars, Welsh, in London, p. ton	6 10 0	—
ditto, to arrive, p. ton	6 10 0	—
Nail rods, p. ton	7 0 0	—
ditto, in London, p. ton	7 10 0	—
Bars, ditto, p. ton	7 5 0	—
Hoops, ditto, p. ton	8 7 0	—
Sheets, single, p. ton	9 5 0	—
Pig, No. 1, in Wales, p. ton	10 0 0	—
Refined metal, ditto, p. ton	10 0 0	—
Bars, common, ditto, p. ton	7 5 0	—
ditto, merchant, in Tees, p. ton	6 10 0	—
ditto, railway, in Wales, p. ton	5 12 0	—
ditto, Swed., in London, p. ton	11 10 0	—
To arrive, p. ton	11 10 0	—
Pig, No. 1, in Clyde, p. ton	2 14 0	—
ditto, f.o.b. in Tees, p. ton	2 8 0	—
ditto, f.o.b. in Tees, p. ton	2 5 0	—
Staffordshire Forge Pig, p. ton	—	—
LEAD.		
English Pig, ordn., p. ton	20 7 0	—
ditto (WB), p. ton	21 5 0	—
ditto sheet, p. ton	21 5 0	—
ditto red lead, p. ton	21 0 0	—
ditto white, p. ton	26 0 0	—
ditto patent shot, p. ton	23 0 0	—
Spanish, p. ton	19 5 0	—

REMARKS.—Although entirely devoid of anything like excitement, a tolerably lively tone pervades the Metal Market. Shipping orders are generally on the increase, India and China coming in with more freedom than for some time past. Comparatively good shipments of metals continue to be made to America, though it must necessarily be years before that country recovers its commercial prosperity sufficiently to become the customers they were to us before the war, and it is extremely doubtful if they ever will do so. Our trade with the European continent is opening up very satisfactorily, and enables us to bear the loss of the American trade without signal depression, thus proving the inelasticity of the metal trade.

COPPER.—The advance in price of English descriptions has been well sustained, more, perhaps, in consequence of the short supply of ores than from good demand, for, as is usually the case after a rise, buyers hold back. But few second-hand parcels are offering, and these at only a fractional concession in price. Foreign remains quiet. Burra Burra, 98½; Kapunda, 98½; Chili, 84½ to 85½; Spanish, 88½.

YELLOW METAL.—On the 30th ult. (four days subsequent to the rise in copper) manufacturers of yellow metal announced an advance in fixed rates of ¼d. per lb., making the present price 8½d. The market, though stiffer, is, however, not equal to this figure. Sellers of sheeting at 8½d.; sheets, 8d.

IRON.—Railway bars steady, at quotations. Merchant bars in better request, and prices have an upward tendency—5½. 15s. at works, and 6½. 10s. f.o.b. here. In Staffordshire makes, owing to the puddlers' strike, the supply hardly keeps pace with the demand; prices are firm, and those works whose men are not out are very busy. Swedish bars very much neglected—quotations unaltered. Scotch pigs have touched 50s., mixed numbers, about the middle of the week, but have since declined to 52s. 7½d. closing buyers; sellers 1½d. more.

SPELTHER.—One of those intermittent periods of activity which characterise this market has occurred since our last report, and prices have advanced to 17½. 15s. cash, 17½. 17s. 6d. having been paid for arrival—about 200 tons are reported to have changed hands. Stock in warehouse here amounted on the 30th ult. to 5208 tons, against 4790 tons May 31, and 5724 tons at the corresponding period last year.

LEAD.—The market for English pig is inactive; sellers quote 20½. 7s. 6d. for ordinary soft; 22½. 15s. for WB; buyers are, however, difficult to meet with; Spanish pig, 19½. 5s.

TIN.—English steady, at fixed rates. In foreign, Banca is quiet, at 131½; business done. Straits at 128½, three months; for arrival, 127½. 10s. is quoted.

TIN-PLATES in good demand for shipment. Many makers of first-class brands have advanced their rates 6d. per box. I.C. coke, 23s.

QUICKSILVER in better request; prices unaltered—7½. per bottle.

THE TIN TRADE.—This article has undergone rather important changes since our last report. Early in the month the market was not only very firm, but even an advance was paid on Banca and Straits—as high as 135½. for the former and 127½. 10s. to 128½. cash for the latter. The Dutch market kept its position well at 80½. The westerly wind which, by the 10th of the past month, brought simultaneously about 15,000 slabs Banca into the Dutch ports caused a sudden check to the upward tendency, and those interested in the article began to reflect whether a sale of about 120,000 slabs would be sufficient grounds for its present enhanced value. The circulars of the Dutch commission houses, expressing their various opinions, increased the perplexity, and it was at one time very difficult to prognosticate the course of the article for the next two months. As the day of the sale drew nearer several sellers came out at 79½. and 78½. f., and, not meeting with any buyers, operators began to offer tin ex sale at 78½. This naturally had a depressing effect, and when, on the 24th inst., the telegraph announced that the whole of 110,000 slabs had been sold at 78½.—equal to 130½. per ton laid down here—the trade was quite taken by surprise, as such a result had never been the least anticipated. After a little reflection, however, operators came to the conclusion that the price of 78½. was to be considered moderate, and all the tin offered from Holland was eagerly accepted. We calculate that, on the 24th and 25th inst., fully 30,000 slabs Banca were secured by English houses, which caused an immediate advance to 77½., and, during the last few days, as high as 78½. f. has been paid in Holland. France and Germany have taken their share in the sale, and we may safely consider the tin to have gone into good hands. A great deal will now depend on the deliveries of the next two months. Should they come up to the average of former years we may calculate upon the advance being sustained; if, on the other hand, they should fall off, a reaction is sure to follow. Those interested in the article will do well to watch this closely. The effect on our own market was, for the moment, depressing; but confidence was soon restored, and we may now look upon our present prices for Straits as moderate compared with Banca. The deliveries in Holland during the past month have been double that of last year, which proves that stocks on the Continent must be nearly exhausted. The consumption of foreign tin in this country is still curtailed, through its comparatively high price with English. Our stock here has not undergone any change from the last return; but, as the landings were nearly 300 tons, consumption and export must have absorbed this quantity. A good deal of Straits tin, too, having been bought during the last four weeks for foreign account, we may expect a moderate but steady export will continue for some time. According to the latest advice from Singapore and Penang, the demand for Japan has ceased for the moment, through our complications with that country. There is no doubt, in case of war being declared, the exports to France would soon be resumed on a larger scale; but should no interruption of our amicable relations take place, shipments to Japan are likely to go on as before. The demand for China still continues.

ENGLISH TIN has not undergone any change during the whole of the month. The demand for refined has been good, and that for common only moderate. Second-hand parcels are now offering under official quotations.

STRAITS.—Refined in the past month the market was firm—as high as 127½. 10s. and 128½. cash for particularly fine parcels were paid; 130½, three months; and as high as

132½. asked for distant shipments. Gradually the market became weaker, but holders did not press sales, which caused prices to be kept quite at its nominal value. After the result of the Dutch sale of few parcels changed hands at 126½. 10s. cash, at which there are now sellers. For three months' prompt 128½. is asked, while for tin now about 130½. is demanded, without meeting with buyers.

BANCA.—But little business was done during the first fortnight of the month, 135½. having been paid in one or two instances. As the Dutch sale drew nearer it became quite neglected, and after the sale several thousand slabs have been done at prompt August 24; now 131½. 10s. is asked. The Dutch market has improved from 76½. to 78½. f., with a very large amount of business.

The arrivals of tin in London during June were as follows:—Straits, per Corair's Bride, 25½ slabs; ditto, per Edward and Julie, 610½ slabs; Banca from Holland, 50 slabs; Billiton, 500—9170 slabs.

TIN-PLATES.—Accounts from America are most depressing, particularly for charcoal, of which the market is overstocked, and, as far as we are able to judge, it is only by a total cessation of shipments during the next three months, that something like a favourable reaction can be expected; this, it is evident, would have a very bad effect on our manufacturers; we see, however, no other remedy, unless a material reduction in price, which, with the present value of the raw material, is not likely to be expected. We quote first-class charcoal 28s., f.o.b., Liverpool; second qualities, 26s. 6d. to 27s. The demand for coke, particularly the common sorts, has been tolerably active, for which in some instances an advance of 6d. per box has been paid; second-hand parcels, however, are obtainable at less than what the manufacturers ask. We quote ordinary coals from 21s. 6d. to 22s., and the better qualities from 22s. 6d. to 24s. 6d., f.o.b., Liverpool.

—DAVIDSON AND NORTH.

GLASGOW, JULY 1.—Our Pig-Iron Market has at length assumed an entirely different aspect to that which has so long characterised it, and although we need not be very much surprised at it when we calmly consider the various circumstances that have been instrumental in changing its current from the ebb to the flood, we are nevertheless unable as yet to regard it as the prelude to a higher range of prices. It is now perfectly evident that the market has for some time past been unduly influenced by open or time contracts, the maturing of which has of late led to large purchases of warrants for cash. The shipments have likewise been above the average, and the home consumption of considerable magnitude. But chief over all in importance has been the political element, the power of which for good or evil few can gauge, nor yet determine the course in which it is likely to run. But short time ago it seemed as if all our political complications were likely to get hopelessly complicated, whereas now we hear of nothing but war averted in one place, and of mediation in another to arrest its further progress. The olive branch seems now to wave where "erst the tocsin sounded," and, consequently, our market has thrown off its recent lethargy, and made manifest its inherent vitality. In the early part of the month a fair amount of business was transacted day by day at 50s. 7½d. to 50s. 9d. cash; later on, the demand for cast-iron increased, and prices soon rose to 52s. 3d.; from this there was a reaction to 51s. 9d., at which we remained steady for some days, but on receipt of the *Ferris* news fresh vigour was imparted to the market, the price advancing rapidly to 53s. cash, at which we close buyers, holders asking 53s. 3d. The lowest price for the month was 50s. 7½d., the highest 53s., and the average 51s. 5d., against 52s. 7½d. in June, 1862, and 49s. 1d. in June, 1861. The gross shipments for the months of this year show an increase of 3610 tons over those of the corresponding returns of 1862, and a decrease of 1308 tons, when compared with those of 1861. On this head there is no room for comment, the totals being so much alike.

	1861.	1862.	1863.
Foreign	140,213	125,757	125,408
Coastwise	168,023	168,869	174,136
Total tons	298,236	294,626	299,544

The local consumption we can only define as large, and in excess of previous years. What it really is we cannot safely determine just now; but we may remark that it must be very much larger than we have any idea of before it, and the shipments can absorb the production of the 135 furnaces now in blast. The average number this year is five more than last, so that the production therefrom must be proportionately larger. If, then, with less power, we accumulated 100,000 tons of stock last year, what must the local consumption be, seeing shipments are about the same, if, as some suppose, there is no increase of stock this year? Our information does not favour the idea of any decrease, but rather the reverse; and although some of the brands most in repute are scarcer than were, there are others not so circumstanced.—ANDREW WOODROW AND SON.

MIDDLESBRO'-ON-TEES, JUNE 30.—A month ago we reported our pig-iron market as being steady, with an upward tendency—that steadiness has been maintained during the whole of this month. Steadiness is a characteristic peculiar to the Cleveland Iron Trade. We neither recede nor advance, except gradually, and then only when there is a good reason for it. In this respect we contrast favourably with Scotland, the market there being always on the move, and at times subject to rapid fluctuations. The reason for this difference is to be found in the fact that undue speculation is unknown to the Cleveland market, whilst the Scotch article is sustained by speculative interchange. The demand for our iron is quite equal to the production, and unless some unforeseen occurrence arising out of the several vexed questions now engaging public attention determine otherwise, such a desirable state of things is likely to continue for some months to come. The demand for manufactured iron is satisfactory; and although there may be no great pressure for immediate delivery, the mills generally are fully employed. The various new works are being pushed forward with vigour, considerable additions having been made during the present month. Messrs. Bell Brothers are erecting two new furnaces at their Clarence Works, where they have six already in operation, and the South Bank Company are about to add three more to their present stock. At our shipyards, iron ships and steamers are being launched every week to make way for others already on order, and so numerous are enquiries that some of the applications cannot be entertained. The iron trade has sustained a loss in the death of Mr. A. B. Cochrane, the head of the firm of Cochrane and Co., of the Ormsby and Woodside Ironworks. The deceased gentleman's name has long been known in connection with many works of great magnitude undertaken by the firm under his superintendence.—ROBERT STEPHENSON AND CO.

The settlement of the fortnightly account took place in the MINING SHARE MARKET on Tuesday, and was particularly heavy, and not yet over in East Caradon and Crebor. Since account-day a fair average amount of business has been transacted in several mines, and some of them continue in good demand. It is satisfactory to find, also, that the standard for copper ore has again advanced this week, and that copper also has risen since our last remarks on the subject. East Caradon shares opened on Monday flat, at 26 to 27; on Tuesday they were very firm for cash, at 26½ to 27, owing to the short supply of stock at the settling, but flatter for the July account; indeed, there was a difference of 7s. 6d. per share, or equivalent to the giving that sum for the loan of shares; on Wednesday they were flatter, at 26½; Thursday, 25½ to 26½; on Friday they opened at 26½ to 27, and left off 27 to 27½. The report shows a falling off in the ends in the aggregate, since last week, of 5½. per fathom. The meeting has been called for Wednesday next, and the accounts, we believe, will show a profit on the quarter equal to about 12s. per share, but it is not certain that more than 10s. per share dividend will be declared. The managing committee have issued a circular to the shareholders, expressing an opinion that weekly inspections seriously interfere with working the mine, and that, therefore, they intend to propose monthly inspections. Marke Valley shares are flat, at 6 to 6½; the dividend here may, probably, be 1s. per share. Wheel Clifford Amalgamated shares have been in good request, and advanced to 29 31. Bottle Hill shares in good demand, and advanced to 14s., 16s.; the south lode, in the new shaft, has improved to 25½. per fathom, and having a still improving appearance. Bryn Gwigi, 29 to 31. Central Miners shares rather more enquired for again, and leave off 32s. 6d. to 37s. 6d.; Cefn Cilcen, 30s. to 35s.; Cook's Kitchen, 25½ to 26½; Drake Walls, 1½ to 1½. East Bassett shares have fluctuated, but leave off 79 to 81. Wheel Grenville shares have been rather flatter, at 6½ to 6½; the ends on the tin lode are worth, in the aggregate, 83½. per fathom, and the mine altogether looking well, but it appears that the price here, as well as in East Grenville, has been affected by over-buying for the "account," and, consequently, forced sales have been made for the settlement. East Grenville shares leave off 3 to 3½; the shaft is worth 5 to 6 tons per fathom, and other parts looking well. East Carn Brea, 8 to 8½; Great South Tolgus, 4½ to 5. Great Wheel Fortune, 35 to 36, and not quite so firm. East Rosewarne, 2½ to 2½; the 55 west is worth 18½. per fathom; the stopes are worth 30½. per fathom, and has sampled 129 tons for two months. Wheel Kitty (St. Agnes), 7½ to 7½; the 54 east is worth 18½. per fathom; the new shaft, 22½. per fathom; in the back, 15½. per fathom; the 44 east, 16½. per fathom; the 34 east, 20½. per fathom; the lode below the level, 20½. per fathom. North Buller, 8 to 9; the mine has improved; in the 60 a lode has been cut, worth 1 ton per fm. North Crofty, 4½ to 4½; and the mine is improving; North Dolcoath, 2 to 2½. North Trekerby, 3½ to 3½; New Wheel Martha, 3 to 3½. Great Wheel Busy is now working at a profit, and the mine is considerably improved; the 130 east is valued at 45½. per fm. for tin; the 130 west, 25½. per fm.; the 130, east of Offord's, 25½. per fm.; the 110 east, 15½. per fm.; Trevenning's winze, 25½. per fm.; Michell's winze, 35½. per fm. Wheel Edward, 2½ to 2½; the lode in the 81 west is worth 3 tons per fm.; the 50 west, 5 tons per fm.; the 50 east, on the new south lode, 4 tons per fm.; the rise, 5 to 6 tons per fm.; they have sampled, for two months, 234 tons of good quality ore. North Robert, 15s. to 17s. 6d. At Kelly Bray the mine continues to look well, and making a small profit. Great Retallack, 6s. to 7s.; Providence Mines, 41 to 42; Redmoor, 3s. to 4s.; Rosewarne United, 1½ to 2½; Sithney Carnmeal, 5½ to 5½; South Bassett, 6½ to 7; South Caradon, 410 to 420; Stray Park, 35½ to 36½; Tincroft, 21 to 22. Penden, 7 to 7½; at the meeting, held on Tuesday, the accounts showed a balance in favour of adventurers of 715½. 7s. 3d., and a loss on the two months' working of 521½. 19s. 8d.; the tin at surface is valued at 1050½., which could not be dressed for want of water. Before next meeting the 142 and 94 fathom levels are expected to reach the run of rich tin ground; and the steam-stamps will be completed in about four months. West Caradon, 24 to 25; West Seton, 230 to 235; West Stray Park, 3½ to 3½. West Tolgus shares have declined to 62½, 67½. Wheel Bassett and Grylls, 21½ to 22½. Wheel Crebor, 1½ to 2½; a falling off has taken place in the 84 east. Wheel Kitty (Lelant), 9 to 10; Wheel Ludcott, 2½ to 3½; Wheel

Margaret, 34 to 35; Wheel Mary Ann, 12 to 13; Wheel Seton, 225 to 230; Wheel Trelawny, 16½ to 17½; Wheel Uny, 6 to 6½. Wheel Uny, 16s. to 18s.; the lode has been cut into 6 inches, worth 1 ton of copper ore in the 40; the 30 east is worth 14½. per fm., and the 30 west coming into ore. West Chiverton, 24 to 25; Williams's lode, in the 80 cross-cut, so far as seen, is 10 feet wide, and worth upwards of 50½. per fm.; the 70 west, on Williams's lode, 40½. per fm.; the 70 west, on Elizabeth's lode, 30½. per fathom. Wheel Chiverton, 7 to 7½. East Bottle Hill shares are getting in demand, at 5s. to 6s.; they are expecting daily to cut Bottle Hill south lode; and Captain Gregory, of Drake Walls, who has inspected the mine, states he has "every confidence that a valuable mine will be opened for a small outlay, and that few mines present such indications of early success." Prince of Wales, 6s. to 8s. North Downs shares have been in demand, and leave off 2½ to 2½; a winze has been commenced below the 60 fm. level, 12 fms. east of Bennett's shaft, and 24 fms. east of Bennett's cross-course, worth 25½. per fm., with a good appearance. At Boscawen, the lode in the winze sinking below the 60 is reported worth 60½. per fathom. North Koskear, 23 to 25; the mine is reported to have improved in the 184 end east, and worth 25½. per fathom.

On the Stock Exchange a fair amount of business has been transacted in Mining Shares during the week. The following prices were officially recorded in British Mining Shares:—Cambrian, 4½; East Caradon, 27½, 27½, 26½, 27½, 27½; East Wheel Russell, 3½; Wheel Ludcott, 4½, 4½; Wheel Trelawny, 18; East Carn Brea, 8½; Wheel Seton, 22½; Providence, 43; North Wheel Crofty, 4½. In Colonial Mining Shares the prices were:—Cape, 2½, 2½; Yadanamutana, 3½, 3½, 3½, 3½; General, 20½, 21; Kapunda, 1, 1. In Foreign Mining Shares the prices were:—Cobre, 31½, 30, 33½, 32½, 31; Santa Barbara, 1, 1, 1; United Mexican, 76½, 76½; Capula, 1, 1; Don Pedro, 1, 1½; St. John del Rey, 53, 52½, 53½.

IRISH MINE SHARE MARKET.—Last week we had the pleasure of recording the sale of 933 tons of Irish copper ore, which brought upwards of 7600£. On July 30, were further sold at Swansea—from Berehaven Mines, 733 tons, realising 6412£. 6s.; from Knockmahon, 432 tons, for 3164£. 15s.; and from Connorree, 129 tons, for 3597£. 12s., making a total for the past month from Irish Mines alone of 2227 tons, value 17,673£. 6s. 1 After such a proof of the capabilities of our several mining districts, we hope that the evidently mistaken theory of Irish mines not holding out in depth will not be permitted to deter either Irish or English capitalists from embarking in Irish mining enterprise. The market for mining shares has been well supported, particularly of those of the older mines. Wicklow Coppers rose 30s. per share from last week's closing price of 38½. 10s.; leaving off firm at 41½. (57. paid). The shares of the Mining Company of Ireland were freely done at 19½. 5s. to 19½. 7s. 6d., and 18½. 17s. 6d., ex div. Want of space prevents our giving a report of the proceedings of the half-yearly meeting of this company, held on the 2d inst., but we intend doing so in next week's Journal. Caryfort shares were a little weaker, and close at par, or 20s. per share. In Connorree shares several transactions took place at the uniform price of 17s., and a few shares changed hands in the General Mining Company for Ireland at 4½. 5s.

The following are the Government Returns of the exports of articles identified with mining, the produce and manufacture of Great Britain, for the five months ending May 31, 1863; and also as compared with the month ending May, 1862; extracted from the "Accounts relating to Trade and Navigation," published by the Board of Trade:—

	1862.	1863.	Increase.
Coal and culm	£1,400,256	£1,417,087	£16,831
Hardwares and cutlery	£1,211,880	1,334,168	122,288
Do. surgical instruments	115,041	114,602	439
Do. agricultural implem.	176,403	164,724	11,679
Do. other sorts	920,436	2,423,760	1,503,324
Machinery	£576,426	593,126	16,700
Steam-engines	576,426	593,126	16,700
Others	855,044	1,444,480	589,436
Total	£5,305,496	£5,550,371	£244,875
Metals:—Iron—Pig	£494,161	£516,937	22,776
Bar, bolt	849,974	976,973	126,999
Railway	1,038,986	1,152,962	113,976
Wire	91,759	178,816	87,057
Sheet telegraphic	133,420	39,249	94,171
Castings	230,269	290,119	59,850
Hoops	351,548	373,964	22,416
Wrought	751,549	814,516	62,967
Old	34,493	3,966,199	3,931,706
Steel	342,292	353,896	11,604
Copper—Unwrought	188,128	488,098	299,970
Wrought	755,709	986,975	231,266
Other sorts	67,267	1,011,304	944,037
Lead—Pig	244,594	346,208	101,614
Ore	81,277	325,571	244,294
Tin—Unwrought	200,192	167,667	32,525
Tin-Plates	814,850	538,577	276,273
Zinc	42,562	35,174	7,388
Grand total	£11,786,655	£13,216,851	£1,430,196
Less decrease—Coal and culm, 23,169½; tin, unwrought, 32,508½; zinc, 7388½			63,065
Total increase			£1,489,196

The Portugal Iron and Coal Company, with a capital of 100,000£, in shares of 10£. each, has issued its prospectus. The object of the undertaking is to develop the concessions of coal and iron mines, in the province of Leiria, granted by the Portuguese Government to Mr. George Croft, of Lisbon. It is stated as showing the mineral capabilities of Portugal—a country hitherto so little explored—that by the application of British capital a private company has been formed for working the mines of sulphur of copper at St. Domingo, in the South of Portugal, which, though little more than four years in operation, now employs 2000 persons, and exports annually 80,000 tons of ore. The construction of railways is also in active progress, and a line from the City of Lisbon to the Spanish frontier has just been completed. Mr. Croft's concessions are 10 in number, comprising a district 10 leagues in length, extending from two miles south of Porto do Moz to a short distance to the north of the city of Pombal, containing inexhaustible deposits of iron, coal, and lignites. The purchase-money is fixed at 6000£. in cash and 35,330£. in paid-up shares, and 300 paid-up shares are to be given to the promoters as their compensation, consequently the only money payment for obtaining the concessions is 6000£. It is estimated that with only two furnaces at work over 14,000£. per annum would be realised as profit, even assuming the iron to be sold in the pig, at an outlay including the cost of concession of 30,000£. to 35,000£.; and, although no estimate is made with regard to the coal, it is remarked that, considering the low price at which the company's coal can be delivered at Lisbon, and comparing it with the price of coal imported into that port, a large income may open out from this source. The concessions have been examined and favourably reported upon by the Hon. J. L. O'Sullivan, late American Minister to Portugal; Mr. Mundie, M.E. of Newcastle; Mr. James Ferrie, M.E., of Queensferry, and others; and with regard to the fuel Lieutenant Norton, R.N., engineer of the mint at Lisbon, reports that he finds its strength equal to the Newcastle; he considers it of good quality for steam, and also for the smelting of iron; he also made coke of it, which proves it to be of the quality necessary for the manufacture of iron. Mr. George Frederick Young is the Chairman of the company, and Mr. J. D. Powles, and other gentlemen of commercial experience, have seats at the board, the Marquis de Saldanha being the principal representative of the company in Portugal.

The Anglo-Brazilian Gold Company, with a capital of 100,000£, in shares of 1£. each, has been incorporated under the Companies Act, with limited liability, the board of direction being the same as in the North del Rey, and Capt. T. Treloar has been appointed the manager. The Don Pedro North del Rey shareholders are to be entitled to an allotment of the same number of shares in the Anglo-Brazilian. The directors withhold the name and description of the mine, that Captain Treloar's negotiations may not be interfered with. As soon, however, as the purchase has been completed, Capt. Treloar's detailed report and description of the property will be published. It is anticipated that 5s. per share will pay for and develop the property.

The Concord Silver, Lead, and Copper Mining Company has been incorporated under the Companies Act, 1862, with a capital of 30,000£, in shares of 3£. each. The object is to purchase the freehold of the Wonwood estate, and work the valuable mine—the Wheel Concord. It is remarked that the principle upon which the company is established of acquiring the ownership of the estate being almost without precedent in Devon and Cornwall, will appear of great importance when it is considered that in the case of a successful mine, the lord's dues usually paid



soon amount to a sum far exceeding the original value of the estate. The purchase-money has been fixed at 16,000*l.*, of which 7,000*l.* is to be in paid-up shares. The vendors bear all expenses up to the date of registration.

The West Polbreen Tin Mining Company, with a capital of 60,000*l.*, in shares of 1*l.* each, has issued its prospectus, which we publish, *in extenso*, in another column of this day's Journal. The sett is situated in the parish of St. Agnes, Cornwall, and contains no less than 13 champion lodes; it is held from the Duchy at a minimum rental of 20*l.*, merging into a royalty of 1-15th. Capt. Wm. Paul, late of Tincroft, reports that there cannot be two opinions with practical miners as to the very probable results in West Polbreen. Capt. John Davies, M.E., knows no other sett in the district likely to be so remunerative for the capital to be employed. Capt. Richard Davies states that the appearance of the mine throughout is very encouraging, much better than he had anticipated. Capt. John Nancarrow has a high opinion of the sett. Capt. James Evans considers that if the mine be properly developed it will pay well, and Capt. James Crase recommends it as a good investment.

The Palleg Anthracite Colliery Company has been formed for the purpose of developing the colliery of the same name, situated in the Twerch Valley, about 14 miles from Swansea Docks, with which port it is in direct communication by the Swansea Vale Railway. The veins of coal, which are six in number, and vary from 2 ft. to 6 ft. in thickness, are calculated to contain upwards of 1,500,000 tons, and the ironstone vein will give nearly 400,000 tons. The coal is an anthracite of superior quality, and there is, according to the above estimate a supply of 100 tons a day for 50 years. The coal has been assayed by Mr. W. Herapath, of Bristol, who reports it to contain 88.7 per cent. of solid carbon. The property has been carefully inspected and reported upon by Mr. Joshua Richardson, M.L.C.E., who concludes an elaborate report by observing that the colliery possesses all the requisite elements for a successful enterprise. The capital has been fixed at 20,000*l.*, in shares of 4*l.* each, and the purchase-money has been fixed at 80,000*l.*, which is less than Mr. Richardson's estimate.

At Camborne Ticketing, on Thursday, 3084 tons of ore were sold, realising 16,658*l.* 19s. 6d. The particulars of the sale were:—Average standard, 116*l.* 15s.; average produce, 7; average price per ton, 5*l.* 8s.; quantity of fine copper, 215 tons 6 cwt. The following are the particulars:—

Date.	Tons.	Standard.	Produce.	Price per ton.	Ore copper.
June 1	3224	116 3 0	6 3/4	5 1 6	275 5 0
" 11	2223	113 11 0	7 1/2	5 2 6	75 1 0
" 15	4733	119 11 0	7 1/2	5 4 6	72 16 0
" 25	2667	113 2 0	7 1/2	5 9 0	75 1 0
" 28	3084	116 15 0	7 1/2	5 8 0	77 5 0

Compared with last week's sale, the advance has been in the standard 2*l.* 5s., and in the price per ton of ore about 3s. 6d. Compared with the corresponding sale of last month, the advance has been to about the same extent.

At the Swansea Ticketing, on Tuesday, 2747 tons of copper ore were sold, realising 31,088*l.* 9s. 6d. The particulars of the sale were:—Average standard, 99*l.* 2s.; average produce, 13 11-16; average price per ton, 11*l.* 6s.; quantity of fine copper, 376 tons. The particulars of the sales during the past month have been:—

Date.	Tons.	Standard.	Produce.	Price per ton.	Ore copper.
May 26	2010	99 3 0	13 11-16	11 13 0	278 5 0
June 16	1980	96 11 0	13 11-16	10 14 6	79 18 0
June 30	2747	99 2 0	13 11-16	11 6 0	28 11 0

Compared with the last sale, the advance has been in the standard 2*l.* 10s., and in the price per ton of ore about 6s. 6d. Compared with the corresponding sale of last month, the advance has been in the standard 4*l.*, and in the price per ton of ore about 10s. Of the 2747 tons of ore sold on Tuesday, 1425 tons were British ores, which gave an average produce of 9*l.*, and sold at an average standard of 104*l.* 13s.—7*l.* 8s. 6d. per ton of ore; the remaining 1322 tons were foreign ores, which gave an average produce of 18 7-16, and sold at an average standard of 96*l.* 15s.—15*l.* 9s. per ton of ore. On July 7 there will be offered for sale 2060 tons, from Chili, Cuba, Berehaven, Cobre, Seville, Holyford, and Australia.

At the East Pool Mine meeting, on June 29, the accounts for May and June showed a credit balance of 835*l.* 7s. 7d. A dividend of 640*l.* (5*l.* per share) was declared, carrying forward 195*l.* 0s. 7d. The profit on the two months' working was 653*l.* 12s. 6d. Captains W. S. Garby (manager), N. Tamlyn, and J. Maynard reported on the mine.

At the Cwm Erfin Mining Company meeting, on June 19, a dividend of 15s. per share was declared. The mine is looking well.

At the Pendennis Consols Mine meeting, on Tuesday (Mr. W. Bawden in the chair), the accounts showed a loss upon the two months (April and May) of 521*l.* 19s. 5d. The assets exceeded the liabilities by 715*l.* 7s. 3d. The report of the agent (Capt. Warren) was read, and was also a letter from Mr. White, the purchaser, which stated that the falling off in the amount was owing to the water-stamps and the tin-stuff being hardly of so good a quality. He had gone carefully into the value of stock of tin at the surface, and he estimated it at 7000 sacks, worth 3s. per sack; calculating the tin at 60*l.* per ton, the total value would be 1650*l.*. The engine-house was being erected as fast as possible, and in one month from the present time it would be ready for the machinery. The Chairman explained that the ground in the 52 north had changed, and the captain believed it was more congenial for mineral than it had been for a considerable distance. In the 118 there were 25 fms. of ground, worth upon an average 50*l.* per fm.; the whole of that was untouched. The secretary, in answer to a question, stated that the engine was provided with two additional axles, so that at any time there could be added another 32 heads of stamps. The report was received and adopted, and the accounts passed and allowed. The committee of management were re-elected. A vote of thanks to the Chairman terminated the proceedings.

At the Rosewarne Consols Mine meeting, on Tuesday (Mr. E. J. Wilson in the chair), the accounts showed a debit balance of 1298*l.* 10s. 4d. A call of 6s. 6d. per share was made. Details in another column.

At the Wheal Emma general meeting, on Wednesday (Mr. W. P. Paul in the chair), the accounts showed a balance of assets over liabilities of 660*l.* 14s. 10d. The captain's report was considered very favourable, and the prospects of the mine, especially in the western part, which is the greatest importance, are much improved.

At the Wheal Crofty meeting, on Wednesday (Mr. F. Wilson in the chair), a call of 7s. per share was made. Details in another column.

At the Fowey Consols Mine meeting, on June 23, the accounts for four months ending April showed a loss of 397*l.* 1s. 6d., which, deducted from the previous credit balance, left a balance of 843*l.* 19s. to credit of next account.

At the East Providence Mine meeting, on June 23, the accounts showed a credit balance of 24*l.* 10s. 4d. A call of 2s. per share was made. Messrs. James and Thomas Hollow are now joint purchasers of the mine, at 6*l.* 6s. per month. Capt. T. Ure reported on the mine. He recommends "the sinking a new shaft on the flanks, west of Boorman's, for ventilation, and to facilitate future operations; about seven months will bring it down to the 60. As most of the deposits of tin in the Providence Mines are about about this flanks, and our rich lode in the 60 west will soon form a junction with it, I have no doubt good results will be met with here. I would also recommend that Boorman's shaft, below the 70, be suspended for the present, until the new shaft shall be communicated with the 60, then the mine will be thoroughly ventilated, and good returns will be made. The number of men employed is 34 underground, 1 smith, 1 striker, and 1 spallier, at the stamps, 1 man, 1 boy, and 1 girl."

At the Carnarvon Mines meeting, on June 23, the accounts showed a debit balance of 803*l.* 8s. 11d. A call of 5s. per share was made. Messrs. Berryman and Davy were appointed surgeons of the mine, in place of the late Mr. Couch. Capt. John Wallis reported on the mine:—"We are putting in a new road in the Nigger engine-shaft, and shall shortly cut a trip-plat, and drive east and west of the shaft. If the levels open up ground such as in the shaft we shall break more tin in the next quarter than the past. Our tribute pitches are looking just as they were at the last meeting."

At the Furze Hill Wood Consols Mines meeting, on June 25, the accounts showed a credit balance of 832*l.* 17s. 11d. A call of 3s. per share was made. The arrears of calls were reduced to 60*l.*. Capt. Thos. Gregory reported on the mine:—"The general character of the ground is inexpensive for working, and we have a full supply of machinery for the development of the mine. I have great confidence, now we have got below the old workings, that the 40 will develop something of importance. I would, therefore, advise that the same active and thorough operations be continued, and thus lay open the mine as fast as possible."

At the Dale Mine meeting, on June 23 (Mr. J. Procter in the chair), the accounts made up to March 31 showed a balance of assets of 349*l.* 0s. 7d. A statement of receipts and expenditure for the nine months ending with costs for March showed a balance at the bankers of 1031*l.* 1s. 3d. The report of the agent was read. The accounts and report having been received and adopted, the meeting was made special, when it was unanimously resolved that the capital of the company should be increased from 30,000*l.* to 35,000*l.*. The directors were authorised to issue 5000 new shares of 1*l.* each, at a discount of 10s. per share, such shares to be offered ratably to the present shareholders; and in the event of any of the shares not being taken up by them, such shares to be disposed of by the directors to other applicants. A vote of thanks was passed to the Chairman and directors for their careful management of the company's affairs; the meeting expressed its confidence in Capt. Nisness, and tendered its thanks to him for his zealous attention to the company's interests.

At the Okel Tor Mine half-yearly meeting, on June 25 (Mr. James M. Thistleton in the chair), the accounts for the last six months, after being audited, were passed, showing a debit balance of 337*l.* 17s. 7d. The present state of the mine was deemed very satisfactory, now that the eastern ends were well ventilated, and the boilers in place; and it was considered that with a little better standard the large reserves of copper ore could be excavated at a remunerative profit; besides this, there was a great improvement in the quality now apparent in the eastern ends and in the bottom of the 50 fathom level. In consequence of the latter, it was resolved to sink the engine-shaft as soon as possible.

At the East India Coal Company meeting, on Monday (Mr. H. Haymen in the chair), it was stated that the railings of the coal had considerably increased. The railway has been opened to the company's Tropic Colliery, and the directors are assured from Calcutta that it only requires additional working capital to make the company pay good dividends. Details in another column.

At a meeting of the allottees of debentures of the Wheal Ellen (South Australia) Mining Company, held at the offices of the company, on Thursday, Sir Samuel Cunard, Bart., Messrs. T. J. Miller, M.P., and Wm. Ferguson, Chairman of the company, were elected trustees for the debenture holders.

The Capula Silver Mining Company have just received some specimens of very rich silver ore from their mines in Mexico. The manager speaks encouragingly of the position and prospects of the property, and states that a more settled condition of the politics of the country may now be anticipated.

The following, dated Halifax, Nova Scotia, refers to the Nova Scotia gold yield, and is from a correspondence which is reproduced in the *Canadian News* of this day:—"It is said that the richest gold-bearing vein of quartz yet discovered in the province has been opened on the claims of the Nova Scotia Gold Crushing and Amalgamating Company, at Sherbrooke. This lode, when first worked in March last, was only 1/2 inch thick at the surface, but so rich that 300 lbs. of quartz, taken from a shaft of 5 ft in depth, yielded 5 ozs. 13 dwts. of gold. But this yield has since been exceeded. The agent, in his return for April, reports that the last 10 feet yielded 9 ozs. 6 dwts. 9 grs. of gold, equivalent to 90 ozs. per ton. The lode, though small, increases in thickness, and is worked downward, and pays in the shaft, on an average, above 100 per cent. over the working expenses."

BOSTON, JUNE 15.—There have been cargo sales of Pictou coal at 87 and Sydney at 87-75 per ton. Anthracite has been in retail demand at 97-60 per ton. Pig-iron is in moderate demand, with sales of Scotch, Gartsherrie, and other brands, No. 1, at 83 and 84; and American, No. 1, at 85 and 86 per ton, cash and four months. Bar-iron is in moderate demand at previous prices. Russia sheet-iron is dull, and prices nominal.

NEW YORK, JUNE 17.—The supply of foreign coal is altogether inadequate to the demand, and prices of gas have an upward tendency; we hear of sales of 500 tons Newcastle gas and 219 tons Sydney on private terms. Domestic is in brisk demand, and is firm at 87 and 88 per ton yard.

NEWCASTLE, JULY 2.—The market this week has been quiet for local mines, but a fair enquiry has been experienced for West Chiverton, Chiverton, and East Carn Brea shares, and a small lot of Nether Heath shares have changed hands at advanced prices. Harwood continues to look well.—EDWARD BREWSTER.

LEEDS, JULY 2.—In mining shares there has been more activity manifested, and a fair amount of business has been transacted, but with little variation in prices.—JOHN GLEDHILL AND CO.

APPLETREEWICK LEAD MINING COMPANY.

SIR,—In reply to a paragraph in last week's Journal, signed "John Gledhill and Co.," I beg to state that there was not any meeting of the committee of this mine at my office on the 11th inst., as stated by the Messrs. Gledhill, nor has there ever been a meeting of the committee (there are no directors) at my office on any previous occasion whatever; and, therefore, what the Messrs. Gledhill state as "facts" are not facts. I also regret to say that there is no "forthcoming dividend of this productive mine."

P. BLACKBURN, Sec.

COAL MARKET.—On Monday, the tone of the market for household coal was rather firmer, only 25 ships having arrived, and last prices were in all cases supported. Hartley's were scarce, and obtained an advance of 3d. per ton. Manufacturers' steady, at previous quotations. Best house coal, 16s. to 17s.; seconds, 14s. to 15s.; Hartley's, 14s. 3d. to 15s. 3d.; Manufacturers', 13s. to 15s. per ton.—On Wednesday, the arrivals of 102 fresh ships gave a large supply of all descriptions of coal. Household sorts supported Monday's prices, but Hartley's submitted to a reduction of 3d. per ton. Manufacturers' without alteration.—On Friday, only 27 ships arriving, the tone of the market for house coal was firmer, and a partial advance of 3d. per ton was realised. Hartley's and manufacturers' steady at last prices. Hetton Wallsend, 17s. 3d.; South Hetton Wallsend, 17s.; Haswell Wallsend, 16s. 9d.; Lambton Wallsend, 16s. 6d.; Stewart's Wallsend, 16s. 6d.; Eden Main, 14s. 6d.; South Kelloe Wallsend, 14s. 6d.; Shincliffe Wallsend, 14s.; Davidson's West Hartley, 15s.; West Hartley, 15s.; Lambert's West Hartley, 14s. 9d.

EXPORTS OF COAL.—By the Monthly Circular of Messrs. Laird, Liverpool, we learn that the quantities of coal exported during May was 572,982 tons, against 681,646 tons in the corresponding month of 1862, showing a decrease of 108,664 tons. The particulars are—From the Northern ports, 311,010 tons; Yorkshire, 23,411 tons; Liverpool, 30,499 tons; Severn ports, 165,437 tons; and Scotch, 42,625 tons. The increase was—Severn ports, 16,064 tons; Scotch, 197 tons. The decrease was—Northern ports, 96,793 tons; Yorkshire, 2758 tons; Liverpool, 25,374 tons.—Total exports, Jan. to May, 2,837,693 tons, against 3,020,691 tons in 1862, showing a decrease of 182,988 tons.

LIVERPOOL COAL TRADE.—From the Coal Circular of Messrs. Platt we learn that the quantity of Cannel, coal, coke, and patent fuel shipped at Liverpool in June was 37,917 tons, and in the corresponding month of last year 50,285 tons, showing a decrease last month of 12,368 tons. The total shipments from January to June were 248,294 tons; same period of last year, 288,664 tons—decrease this year, 40,370 tons. The exports coastwise during June were 8991 tons; same month last year, 6825 tons—increase last month, 2166 tons. Total exports coastwise from January to June, 41,799 tons; last year, 32,639 tons—increase, 9160 tons.

GREAT WHEAL BUSY.—In April last, the non-paying part of this property was divided from the United Mines, and is now working under the name of Boscawen Mine. The result to the former is monthly profits, and had the adventurers adopted this course three years back Busy proper would have been in the dividend list. Great Wheal Busy's monthly returns are now about 2400*l.* against a cost of 2250*l.* to 2300*l.*, but the mine has not yet felt the rise in the price of tin and copper, or the returns of tin nor yet much increased from the important discovery in the bottom level—the 30. The tin lode is valued in three places at 45*l.*, 30*l.*, and 25*l.* per fathom, and this run of tin has already been discovered 30 fms. in length, and the engine-shaft sinking close home to the discovery. The copper part is likewise looking better; the 110 end is worth 16*l.* per fathom; Trevening's, 25*l.* per fathom; Nicholls's winze, 35*l.* per fathom; and at the western part of the mine they have a lode at the 50 fms. level, 15 feet wide, producing some of the finest specimens of copper ore to be seen in the country. From the composition of this splendid lode, it seems quite certain the level is running over an enormous deposit of rich copper ore. The agents have determined to sink a winze below the level, and little doubt remains but this operation will lead to a good course of ore. This mine will soon take a prominent position in the market.

CALLS NOT "PAYABLE" THOUGH "DUE."—This question was argued before Mr. Justice Mellor, in re the Inns of Court Hotel Company, upon a rule nisi granted by the Court of Queen's Bench for a mandamus to the company to compel them to register a transfer of shares made by a shareholder after a call had been made by the directors. It was now contended on the part of the company, that if the question in this case should be decided against them, it would be impossible to enforce a call, for the shareholder might transfer after the call was made, and then it could not be recovered from the transferee, because of the transfer; nor from the transferee, because he was not a shareholder when the call was made. On the other hand, it was urged that if a transfer could not be made before a call is payable, a company might keep a shareholder for ever, by appointing successive calls to be made at long intervals. Mr. Justice Mellor held that the call made in this case by the company when their exigencies did not require it did not make the shareholder "indebted" to them; and that the call was not in fact "payable" within the meaning of the Act.

LIABILITY OF PROMOTERS.—In re the Great Northern and Midland Coal Company, five promoters of the company agreed by regulation to take 100 shares each, and act as directors; they afterwards subscribed the Memorandum of Association for 21 shares each, and signed the Articles of Association, which provided that the names of the first directors should be determined by the subscribers of the memorandum, that until the appointment of directors the subscribers should be deemed to be directors, and that no shareholder should be entitled to be a director unless he held at least 100 shares; no directors were appointed, and the company was ordered to be wound-up. The Lords Justices held that the five promoters were rightly placed on the list of contributors for 100 shares each. Lord Justice Turner said the promoters were bound to have appointed directors, who would have had to qualify themselves by taking 100 shares. Having omitted to make any appointment, they must in equity be deemed to have appointed themselves, and so make themselves liable.

TRANSFER OF SHARES AFTER CALLS.—A question similar to that which arose in re the Inns of Court Hotel Company, of which we give a notice, has been decided by Vice-Chancellor Kindersley, in re the British Provident Life and Fire Assurance Company; and the Vice-Chancellor has held that where a shareholder after a call is made, but before the day fixed for payment, transfers his shares, on the construction of the 54th section of the 7 and 8 Vic. c. 110, such transfer is valid. The Vice-Chancellor referred to the 54th section, which is that "if at the time of such transfer the shareholder shall not have paid the full amount due and payable to the company on every share held by him, he shall not be entitled to transfer any share, unless there be a provision to the contrary in the Deed of Settlement." His Honour said that it was evident that the Legislature intended that where a single shilling was actually due and payable the shareholder could not transfer without first paying the call; but, in the words of the Act, it must be "due and payable," or it could not be enforced.

CAST TUBULAR BOILERS.—The case of Ormon v. Clarke was a claim by a patentee in respect of the application of a known process to produce a known article. Tubular boilers for horticultural buildings had formerly been cast in several pieces. The plaintiff took out a patent for an improvement in the manufacture of "cast tubular boilers such as described" by casting the whole "in one piece," and in this action for infringement the jury found the alleged invention was useful to the public. The specification did not point out in what way the plaintiff's boilers differed from boilers previously used, or any improvement in them. The Court of Exchequer held (affirming a judgment of the Common Pleas) that the mere casting in one piece an article previously cast in several pieces was not the subject of a patent.

THE PERRAN FOUNDRY COMPANY.—We understand that some changes have lately taken place in the partnership of the extensive foundry at Perran Wharf, employing at the present time nearly 200 hands, Mr. John Michael Williams, of Penryn, retiring from the same. The present partners are, we believe, Mr. Wm. Williams, of Tregidow; Mr. Sampson, of Greatwood; Mr. George Williams; Mr. Lanyon, of Kennall Vale; Mr. F. M. Williams, and Mr. W. H. Lanyon; the two latter gentlemen acting as managers.—West Briton.

BLACK TIN.  
Sold on the mine.  
Mines. Tons. c. q. lbs. Price per ton. Amount. Purchasers.  
Wheal Sidney 5 9 1 4 £73 15 0 £402 19 10—  
Sold on the 27th June.  
Phanix 7 2 3 8 £5 10 0 467 14 9—  
Sold on the 1st July.  
St. Wh. Bary 20 0 0 0 — — 1238 0 2—

LEAD ORES.			
Sold on the 29th June.			
Mines.	Tons.	Price per ton.	Purchasers.
Glogfash .....	60	£16 0 6	Newton, Keates, & Co.
Cwmystwith .....	100	12 11 6	Pantlher Co.
Sold on the 30th June.			
Bronfloyd .....	22 1/2	13 4 0	Sims, Williams, & Co.
ditto .....	22 1/2	13 4 0	Newton, Keates, & Co.

BLENDE.			
Sold on the 29th June.			
Mines.	Tons.	Price per ton.	Purchasers.
Great Retailack .....	98	£21 11 0	Vivian & Sons.

COPPER ORES.			
Sold at LIVERPOOL, by Mr. James Lewis, on the 22d June.			
Mines.	Tons.	Price per ton.	Purchasers.
West Canada (ex Agis Sofia) .....	55	£17 4 0	Hibby Sons & Co.
ditto .....	55	17 18 6	ditto
ditto (ex St. Andrew) .....	55	17 14 6	ditto
ditto .....	55	17 10 0	ditto
Knockmahon (ex West Docks) .....	55	9 9 0	Newton, Keates, & Co.
ditto .....	65	9 11 0	ditto
ditto (ex Brothers) .....	75	9 4 6	St. Helen's Co.
ditto .....	75	9 5 0	Newton, Keates, & Co.

COPPER ORES.			
Sampled June 10, and sold at Swansea June 30.			
Mines.	Tons.	Produce.	Price.
Berehaven .....	129	11	£8 18 6
ditto .....	120	11 1/2	9 2 0
ditto .....	51	11 1/2	9 6 0
ditto .....	104	10 3/4	8 12 6
ditto .....	80	10 3/4	8 12 0
ditto .....	47	11 1/2	9 3 6
ditto .....	110	10 3/4	8 6 0
ditto .....	92	10 3/4	8 7 0
Cobre .....	90	12 3/4	10 2 6
ditto .....	83	12 3/4	10 2 6
ditto .....	79	12 3/4	10 2 6
ditto .....	88	12 3/4	10 6 0
ditto .....	86	12 3/4	10 2 6
ditto .....	77	12 3/4	10 2 6
ditto .....	71	12 3/4	10 2 6
ditto .....	49	30 3/4	25 0 0
ditto .....	49	30 3/4	24 17 0
ditto .....	9	16 3/4	13 14 0
Knockmahon .....	87	10 3/4	8 11 0
ditto .....	63	8 1/2	4 0 6
ditto .....	63	8 1/2	4 1 0
ditto .....	61	10 3/4	8 15 6
ditto .....	60	10 3/4	8 11 6
Mines.	Tons.	Produce.	Price.
Knockmahon .....	98	11 1/2	£8 16 0
Cape Cop. Co. .....	42	20 3/4	17 3 6
ditto .....	34	20 3/4	17 7 6
ditto .....	58	39	33 3 0
ditto .....	35	29 3/4	25 6 0
ditto .....	11	26	22 3 6
ditto .....	35	32	27 5 0
ditto .....	8	27	23 0 0
Laxey .....	131	6 3/4	5 0 6
Connorree .....	79	4	2 16 0
ditto .....	42	4 3/4	2 18 0
ditto .....	8	3 3/4	2 1 6
Sestri .....	43	9 1/4	7 14 6
ditto .....	42	16 3/4	14 0 0
ditto .....	36	12	9 17 6
ditto .....	6	6 1/2	8 19 0
Genoa .....	75	6 3/4	5 10 0
ditto .....	47	6 3/4	5 0 6
Kanmantoo .....	25	5 3/4	45 10 6
ditto .....	18	5 3/4	44 4 6
Lisbon .....	60	26 3/4	21 2 6
ditto .....	56	26 3/4	20 16 6
ditto .....	6	26 3/4	21 2 6

TOTAL PRODUCE.					
Berehaven'.....	733	£412 6 0	Connorree .....	129	£ 359 12
Cobre .....	685	848 18 0	Sestri .....	127	1329 7
Knockmahon .....	432	3164 15 0	Genoa .....	122	648 13
Cape Copper .....	233	5501 19 6	Kanmantoo .....	43	1994 3
Laxey .....	131	658 5 6	Lisbon .....	122	2660 9

COMPANIES BY WHOM THE ORES WERE PURCHASED.			
	Tons.	Amount.	
Copper Miners Company .....	248½	£2968	1 3
Freeman and Co. ....	272½	1869	16 9
P. Grenfell and Sons. ....	281	4602	10 0
Sims, Williams, Nevill, and Co. ....	44	695	17 0
Vivian and Sons. ....	21	60	18 0
Williams, Foster, and Co. ....	675½	6133	7 3
Mason and Elkington ....	51	474	6 0
Bankart and Sons ....	8½	185	6 0
Charles Lambert .....	419	6424	3 6
Havenhead Copper Company .....	177	1785	1 6
Sweetland, Tuttle, and Co. ....	192	768	4 0
Jennings and Co. ....	160½	2039	7 9
Neath Copper Company .....	154	1774	8 6
Penclaidd Copper Co. ....	112½	1266	1 3
Total .....	3747	£31,038	9 6



# THE WEST POLBREEN TIN MINING COMPANY

(LIMITED), ST. AGNES, CORNWALL.  
Incorporated under the Companies Act, 1862.  
Capital, £5000, in shares of £1 each.  
Deposit on application 5s., and 5s. on allotment. No further calls to be made for twelve months.

**DIRECTORS.**  
EDWARD W. BURLS, Esq., the Villas, Erith.  
H. L. PHILLIPS, Esq., 8, London-street, Fenchurch-street, London.  
JOHN GRIMMETT, Esq., 2, King's-row, Walworth, London.  
JOHN WARD, Esq. (firm of Ward Brothers), 55, Bartholomew-close, and Islington, London.  
W. C. PAUL, Esq., 79, Queen's-road, Rye, Sussex.  
BANKERS—Messrs. Lubbock and Co., 15, Lombard-street, London; Williams and Co., Miners' Bank, Truro, Cornwall.

**SOLICITORS**—Messrs. Waller and Kirby, 2, Duke-street, Adelphi, London.  
**AUDITOR**—Charles Warwick, Esq., 25, Bucklersbury, London, E.C.  
**SECRETARY**—Mr. T. Carshaw.

**OFFICES**—12, BUCKLESBURY, CITY.

This company is established for the purchase and working the extensive and valuable tin mine called West Polbreen, situated in the parish of St. Agnes, Cornwall, one of the richest tin districts in that county.

The sett is bounded on the west by Wheal Charlotte, on the north by Wheal Friendly, Wheal Trevaunance, Polbreen, and other celebrated tin mines, and on the east by Polbreen. It is traversed by the productive lodes by Polbreen, Wheal Kitty, and the immediate mines, and is intersected by the enormously productive lodes of Polbreen and other rich mines of the district.

In this sett are no less than thirteen champion lodes, all of which have produced large quantities of tin, and give evidence of a highly mineralised property. A fine cross-course is in immediate proximity to that part proposed to be opened up, which can be rendered advantageous for cross-cutting to the various lodes.

A shaft has already been sunk 40 fms. deep, which communicates with an adit driven on the course of one of the lodes, and which has been extended about 50 fms. into the sett from the eastern boundary. In this adit, for about 30 fms. in length, the lode has been taken away on tribute, the excavations on reaching the surface, and by cross-cutting to the next lode, this mine will be self-supporting in a very short time, and by developing the various lodes at the adit level great profits will, in all probability, be made.

This property has been inspected by practical mine agents of the district, whose reports (which are annexed) fully warrant the directors in anticipating most satisfactory results, the partial development recently made, being even more productive for tin than the expectations of the present proprietors led them to anticipate.

The sett is held under lease for twenty-one years from His Royal Highness the Prince of Wales, as Duke of Cornwall, at a minimum rent of £20 per annum, to merge into the royalty of one-fifth of all the tin sold prior to the erection of an engine, and one-twentieth afterwards.

The capital of the company will consist of £5000, in 5000 shares, of £1 each. Deposit, 5s. per share on application, and 5s. per share on allotment. No further calls to be made for twelve months. The conditions of purchase of this valuable property are £2200 in fully paid-up shares, thus proving the vendor's confidence in the success of the undertaking.

The company having been registered with limited liability, no shareholder can, under any circumstances be made responsible for a greater amount than that of the shares to which he subscribes.

There are no special articles of association, Table A under the Companies Act, 1862, being added in its entirety, except Clause 37, which has been altered so as to ensure the attendance of a sufficient number of shareholders to enable business to be transacted at the meetings of the company.

A considerable portion of the capital has already been subscribed, and the directors will proceed to allot the shares as soon as they deem the requisite number applied for. Some fine specimens of the ore may be seen at the offices of the company.

Prospectuses, plans, forms of application for shares, and any other information may be obtained of the secretary, at the offices.

## REPORTS.

*Carthen Cottage, Pool, June 2, 1863.*—I have carefully examined the above mine, both at surface and underground, and I have thought of its contiguity to Polbreen Consols to the east, which I used to visit many years ago, when the price of black tin was only £10 per ton, and now the same quality tin will fetch about double that sum per ton. The lodes, strata, and quality of the tin being the same in appearance in both mines, similar results may be fairly calculated on—i.e., that West Polbreen will become a good mine. Polbreen C-moils having been worked very extensively for many years, and having a steam-engine with all its retinue of costs to contend with, cannot compete with you as to the cost per ton to send tin to the market. That the locality is good, no one can dispute; the number of lodes known to exist are several, and their being so contiguous to each other, and having two good cross-courses on which cross-cuts can be extended to intersect the whole of the lodes, and from which levels can be extended to explore the whole (or the most productive of them) are advantages very rarely to be met with, and strongly recommend a sufficient capital to lay open ground expeditiously on the lode now being extended on west, and to extend the cross-cut north to intersect Dorcas lode; these appear to be the two main objects for the present. I need not go over the same ground as other agents who have preceded me in their inspections, I will only say I know the men, and believe them to be of sterling principle and of great experience, and in addition to what I have said, I beg to confirm their reports; indeed there cannot be two opinions with practical miners as to the very probable results in West Polbreen.

WILLIAM PAUL, late of Tincroft.

*St. Agnes, Cornwall, Feb. 3, 1863.*—In compliance with your request, I send you my report of West Polbreen Mine. This tin mine is situated in one of the most celebrated tin-producing parishes in Cornwall. From time immemorial St. Agnes has continued to yield immense quantities of tin; and even now the inhabitants can boast of a Wheal Trevaunance, Wheal Kitty, Polbreen, and other mines, all of which are giving good results. West Polbreen adjoins and abuts the above mines on the west; and the various lodes of this mine are the same lodes as those now yielding dividends in the mines adjoining. The stratum is precisely the same as that of every productive mine of the district, being a buff kilias, full of threads or strings of tin. In this mine a shaft has been sunk from surface to the deep adit, called Polbreen adit, which is about 40 fms. from surface. This adit has been extended into the sett some 50 fms. on one of the lodes, which has been so productive for tin that, for 30 fms. in length, the whole of the lode has been taken away from the adit to the surface. In the forepart of the adit the lode is of great promise, and is producing good saving work for tin. About 20 fms. north of this lode is the celebrated Dorcas lode; and a cross-cut is driven about 10 fms. towards it, leaving about 10 fms. to intersect the same; when cut and opened upon good results will be certain. Some 50 fms. west of the present workings is a cross-course of some magnitude. I would, therefore, suggest the propriety of first cross-cutting to the Dorcas lode, and then to drive west on the lode already opened, and also on the latter until the cross-course is being reached. Then communicate to those levels with a shaft, for ventilation, &c. This done, you will have some thousands of fathoms of tribute ground opened up, high and dry; which will not only make the mine self-supporting, but will, no doubt, result in good lasting dividends. By looking at the map of this mine, you will see that the sett is very extensive on the course of the lodes, and that there are no less than 15 champion lodes worthy of development, which can be done by cross-cutting on the great cross-course, very inexpensively. In conclusion, I beg to remark that by opening up the mine as above, on a scale worthy of enterprise, I know of no other sett in the district likely to be so remunerative for the capital to be employed as the West Polbreen.

JOHN DAVIES, M.E.

*West Polbreen, St. Agnes.*—Since commencing operations at this mine we have erected a whin, 11-ft. cage, shaft tackle, fixed 40 fms. of ladders, and divided and cased the shaft down. We have drawn to surface some of the old shaft, and in doing so found some good stones of tin; this will pay for stamping. We have also cleared several fathoms westward in the deep adit, and got into the end. The lode is of a very promising character, and produces good work for tin. In driving this level westward we shall be bearing the cross-course; we may, therefore, reasonably expect an improvement in the lode. The stratum is of the right sort for tin. On clearing out the old shaft, we have covered a level about 7 fms. above the adit level, driven westward on the course of the lode, leaving a back some 30 fathoms in length. We think this ground stands in whole as high as the surface. The lode in this level is tiny for the whole length, and in the same gullies there are rich branches of tin. From this place we have broken a good pile of tinstuff, and are daily breaking more. I may safely say that this back will pay well for taking away. The appearance of the mine throughout is very encouraging, much better than I had anticipated. I would further add that Wheal Trevaunance, a sett close to our north boundary, is worked in the same way you propose to work this mine—viz., upon steam-power, and has given to the adventurers upwards of £150,000 profit, and I see no reason why West Polbreen should not be equally productive and profitable.

ED. DAVIES.

*West Polbreen, St. Agnes.*—All that has been said and written respecting this mine has been fully borne out, for already we have sold about £30 worth of tin, and I estimate about £20 worth more on the mine now broken. We have not driven a fathom in the sett, so that nearly all the tin has come from the backs above the adit referred to in my former report. However, to work the mine properly you must push forward the adit west on the course of the lode, to meet the cross-course, and drive the cross-cut about 10 fms. further north, to intersect Dorcas lode. This done no doubt the mine would be self-supporting almost immediately, and in a very short time West Polbreen cannot fail to be on the dividend-paying list.

ED. DAVIES.

*St. Ives Consols.*—West Polbreen Mine is situated in the parish of St. Agnes, Cornwall, near the Beacon, on the south-east. Around the base of this hill large quantities of tin have been raised from time immemorial. The sett is large; the stratum kilias. The well-known Polbreen Consols and Trevaunance Mines are situated to the north of this sett, on parallel lodes, and Polbreen Mine, now very productive, adjoins it on the east. The ground is traversed by several east and west lodes, and all the lodes in Polbreen run through it. On one of these an adit, 40 fms. deep, is driven from the east boundary 50 fms. west. There is a shaft down on the adit near the boundary. The ground for half the distance driven has been taken away from adit to surface, and has evidently paid well. It is worked in some places to a greater length. There is but little done to explore the other parts of the sett. The surface rises westward, and the adit would be in some places from 50 to 60 fms. deep. There is a cross-course 40 fms. west of the adit end, about which the lode will, in all probability, be very productive; and one principal point is to drive the adit west on the lode. Another is to drive a cross-cut north, to intersect several lodes which are at no great distance. The principal of these (Dorcas lode, now richest in Polbreen) is probably within 20 fms., and towards this a cross-cut is already driven 10 fms. The cost of driving would not exceed £5 per fathom, and the ground is in all respects congenial for tin. As the lode already opened on has been productive, the one just before the cross-cut may be expected, from its size, position, and yield eastward, to be more productive. This ground can be wrought very inexpensively, because a great deal can be done without a pumping-engine. This district has not only given great returns but great profits, and that in many cases at 30, 40, and 50 fms. deep. From long acquaintance with the neighbourhood and careful examination, as well as recent inspection, I have a high opinion of this sett, and think it will well repay a moderate outlay.

JOHN NANCARROW.

*North Trecroft, St. Agnes, Cornwall.*—According to your request, I have inspected West Polbreen Mine, and beg to hand you my report and opinion of the same. This mine is situated in the parish of St. Agnes, in the county of Cornwall, which is one of the best tin districts of the county. It adjoins the celebrated Polbreen Mine, Wheal Trevaunance, and Polbreen Mines, all of which are well known for the immense profits they have made. West Polbreen adjoins and is on the same lode as Polbreen Mine, which is now working and making large returns of tin. There is an adit driven about 45 fathoms west of the whin-shaft, which is 40 fathoms below surface. There must have been a fine course of tin in the adit, as the back and bottom are taken away for upwards of 25 fathoms in length and height, and from the workings I judge the lode must have been 8 to 5 fms. below the adit level on account of the water. There are

several other lodes in this mine north of the above lode, and it is my opinion that the splendid lode (known as Dorcas lode, in Polbreen Mine), which produced so much tin in a former working, is standing in whole ground in your mine, about 20 fathoms north of the above adit level. This greatly enhances the value of your mine, and as there is a cross-cut a few fathoms west of the whin-shaft, driven about 10 fathoms, I should recommend you to drive the cross-cut and intersect the north lodes. In conclusion, I beg to give a good opinion of the mine, and can recommend it as a good investment.

JAMES CHASE.

*North Jane Mine.*—As desired I beg to hand you my opinion of this sett; it is extensive, and there are several lodes that traverse the whole length of the sett; it is extensive, and there are several lodes that traverse the whole length of the sett, which has furthered the return will be very productive. Also, there are two cross-courses, which is considered by all scientific men to be a great capital to the production of minerals; the stratum is quite congenial for tin, and being surrounded by several good tin mines—viz., Polbreen, Trevaunance, Wheal Kitty, Polbreen; and being bounded on the east by the latter, and on the same lode, I consider this to be a good speculation. It can be worked at a small outlay, as there is a 40-fathom adit, and by cross-cutting north and south more lodes might be intersected. There has been tens of thousands of pounds worth of tin raised in this district above this level; at Polbreen, for instance, one-half of their returns is from above the adit level. My firm opinion is, if this mine is properly developed, that it will pay well.

JAMES EVANS.

Manager of North Jane Mine, near Truro.

## ABERDOVEY SILVER-LEAD MINE, MERIONETH, WALES.

This mine has recently been divided into 5000 shares (originally 700); 3500 are allotted to the present holders, and 1500 are offered to the public at £2 per share, £1 to be paid on allotment, the remainder by calls of 10s. each, at intervals of three months, forming a working capital of £3000. This, it is considered, will be amply sufficient to enable the company to make large returns, and bring the mine into a dividend position. Lead ore is now being raised nearly sufficient to meet the expenses of the mine, and with further capital the return will be considerably increased.

There are two water wheels on the mine, and ample power and machinery for raising, dressing, &c., 200 tons of ore monthly.

Any further information can be obtained of the secretary, Mr. Laws, 50, Threadneedle-street, London, to whom application can be made for the shares.

63

## THE GREAT CADER IDRIS LEAD, COPPER, IRON MINING, AND SLATE COMPANY (LIMITED).

This company, being completely registered under the Joint-Stock Companies Act, 1862, with limited liability, no shareholder can, under any circumstances, be made responsible for a greater amount than the shares for which he subscribes.

Capital, £40,000, in 40,000 shares, of £1 each.

Deposit, 5s. per share on application, and 5s. per share on allotment.

**DIRECTORS.**

Col. ABBOTT, 150, Leadenhall-street, and Upper Spring-street, Portman-square.

WILLIAM ANCKM, Esq. (formerly H.M. Consul at Tunis), Fens, Surrey.

E. J. BRIDELL, Esq. (Director of the St. David's Mining Company), 34, Beaumont-street, Portland-place.

E. J. COLE, Esq., 76, Gower-street, Bedford-square.

EDWARD RICHARDS, Esq., Knightsbridge, and Westbourne, Emsworth, Sussex.

JAMES YOUNG, Esq., 19, Great George-street, Westminster.

(With power to add to their number).

**BANKERS**—Messrs. Roberts, Lubbock, and Co., Lombard-street.

**SOLICITOR**—G. R. Dodd, Esq., F.S.A., 26, New Broad-street, E.C.

Auditors will be appointed by the shareholders.

**JOINT SECRETARIES** (pro tem.)—Messrs. Letch and Maguire.

**OFFICES**—1, COLEMAN STREET BUILDINGS, MOORGATE STREET, E.C.

This company is formed for the purpose of purchasing an extensive and valuable grant of lead, copper, iron ore, and slate, on the north side of the noted Cader Idris Mountain, known as the Cynnedd-lawr, in the parish of Llanegryn, Merionethshire, North Wales, held under lease for 21 years, at 1-16th royalty on all minerals (except iron ore, at a royalty of only 4d. per ton).

The grant includes numerous lodes of lead, zinc, and copper; iron of the best quality, and blends with traces of gold, also excellent slate.

An adit level intersects several lodes of silver-lead, or galena.

A copper lode opened upon gives promise of excellent results.

An iron vein runs through the entire grant.

An extensive bed of slate of good cleavage can be worked to great advantage.

The silver-lead, proved by assay, has yielded 40 ozs. of silver to the ton of ore.

Lead and copper from a shaft at the end of the adit have realised £32 per ton.

The iron vein is estimated to produce 64 per cent. of iron.

The slate is of superior quality, and can be cut into pavement, flooring, chimney pieces, &c.

The streams of water running through the grant offer great facilities for working, scouring, and cutting the slate. In fact, a quarry opened upon the property will pay well for working.

The foregoing facts and the position of the grant, in a rich mineral district, warrant the conclusion that, efficiently worked, the mine is capable of yielding returns equal to those of the most profitable mines in the principality.

The property being advantageously situated, about half a mile from the Welsh Coast Railway, from which a siding can be constructed at moderate cost, and only 2½ miles by public road from the shipping port of Barmouth, affords a facility of transit which greatly enhances its value.

With these advantages, and adequate water power for working machinery, dressing ores, &c., the directors after careful investigation confidently anticipate that 10s. per share upon the capital of the company will be sufficient to develop the wealth of the mine, and produce profitable results without further calls.

The lease having been agreed to take £2000 in cash, and 5000 paid-up shares, assigns all his interest in the mine, including upwards of 100 acres of mineral ground, the previous outlay, mining buildings, smith's shop, offices, dressing-floors, bucking-house, &c.; immediate operations can, therefore, be commenced, when in the judgment of the directors sufficient capital is subscribed.

Samples of the different ores taken from the mine, reports, prospectuses, and forms of application for shares, may be obtained at the offices of the company, and the deposit paid on application will be returned, if no allotment be made to the applicant.

## FORM OF APPLICATION FOR SHARES.

To the Directors of the Great Cader Idris Lead, Copper, Iron Mining, and Slate Company (Limited).

GENTLEMEN.—Having paid to your credit with Messrs. Roberts, Lubbock, and Co., £1, I hereby request you will allot me shares in the above company, and I agree to accept such shares, or any less number than that may be allotted to me, and I authorise you to insert my name in the register of shareholders for the same.

Name.....

Address.....

Profession or business.....

Date.....

The above form to be filled in by the applicant, and forwarded to the bankers, with the deposit, when a receipt will be returned, signed by the bankers, as a voucher.

64

## THE STAFFORDSHIRE ROLLING STOCK COMPANY (LIMITED).

Capital £50,000, in 5000 shares of £10 each.

Deposit 10s. per share on application, and 30s. per share on allotment.

**DIRECTORS.**

SAMUEL BROOKS, Esq., The Uplands, Stourbridge.

T. DIFFANGER, Esq., St. John's Wood, London.

JOHN FARMER, Esq., Summer Hill, Kingswinford, Staffordshire.

GEORGE FAGG, Esq., Highbury, London.

THOMAS HUGHES, Esq., Ambicote, Staffordshire.

D. FRASER LUCKIE, Esq., Ashby-place, London.

SAMUEL MOBBERT, Jun., Esq., Coalbrookdale, Staffordshire.

JOEL MAURICE, Esq., Beauty Bank House, Stourbridge.

C. S. PERRINS, Esq., Hagley-road, Stourbridge.

T. ROBINSON, Esq. (Messrs. John Robinson and Co.), Gresham House, London, and Town Hall-buildings, Manchester.

J. EVANS TIBBS, Esq., Threadneedle-street, London, and Bylock Hall, Middlesex.

WILLIAM WATKINS, Esq., Ironmaster, Ambicote Hall, Stourbridge.

**AUDITORS.**

London..... Johnson, Cooper, and White (Public Accountants), 5, Lothbury.

Birmingham..... John Percival, Esq., Brawitt's Hill.

London..... Edward Cavell, Esq., 5, Gray's Inn-place, London.

Kidderminster..... Arthur J. Day, Esq.

**BANKERS.**

English and Irish Bank, 25, Poultry, London; and 3, College Green, Dublin.

Stourbridge—The Stourbridge and Kidderminster Banking Company.

**BROKERS.**

London..... Sir R. W. Carden and Son.

Manchester..... Messrs. Shore and Kirk, St. Ann's-square.

Birmingham..... Messrs. Robert Massey and Son, Cherry-street.

**SECRETARY** (pro tem.)—William Neale, Esq.

**OFFICES**—55, LOMBARD STREET, LONDON.

## ABRIDGED PROSPECTUS.

The Staffordshire Rolling Stock Company (Limited) is established for the purpose of constructing, purchasing, maintaining, and leasing carriages and wagons to railway companies, collieries, and commercial firms in the United Kingdom and elsewhere; and for the purchase of an established local company of the same description, having a paid-up capital of nearly £10,000. It has been in existence for a period of nearly two years, and during that time paid dividends of 7½ per cent. The business is now so lucrative and increasing as to require and warrant a considerable augmentation of capital. There will no profit or bonus paid to anyone for the sale or surrender of the old business, the present shareholders receiving only shares of equal amount in the Staffordshire Rolling Stock Company (Limited), in exchange for their old ones. The new company will receive the benefit of all accrued profits and reserves, which are considerable.

These companies, nevertheless, are among the most successful undertakings of the day, distributing large dividends to the shareholders, and accumulating ample reserve funds, as will be seen from the following statements of a few of them:—

Name of company.	Amount of share.	Div. per cent.	Reserve.	Market value.
Railway Rolling Stock Association	£10	9	£24,022	£35 to £40
Birmingham Wagon Company	10	10	12,332	40 to 45
Gloucester Wagon Company	10	8	11,740	25 to 30
Midland Wagon Company	50	10	58,910	90 to 100

\* And occasionally a large bonus.

Prospectuses and forms of application may be had at the offices of the company, or of the brokers and bankers.

## MR. J. P. ENDEAN, MINING AND GENERAL SHAREBROKER.

1, CROWN COURT, OLD BROAD STREET, LONDON, E.C.

Investors will find, through him, an advantageous opportunity for BUYING or SELLING MINE SHARES, or OTHER SECURITIES, the usual commission charged. MINES and MINERAL PROPERTIES INSPECTED and truthfully REPORTED; terms moderate. Telegraphic messages receive immediate attention.

A selected list of sound progressive and dividend shares will be forwarded on receipt of a fee of 5s., in stamps or post-office order.

**JOINT-STOCK COMPANIES.—ADVICE AND (if required) PROFESSIONAL ASSISTANCE GIVEN to any bona fide undertaking by MR. LEE STEVENS 36, CANNON STREET, E.C.**

# CHIVERTON WHEAL ROSE SILVER-LEAD MINE, ST. COLUMB, CORNWALL.—In 100 shares.

This valuable property has been granted by H.R.H. the Prince of Wales, for a term of 21 years, at a royalty of 1-16th, to be reduced to 1-18th, upon an engine being erected. It is situated in the parish of St. Columb, Cornwall, near to the original workings of East Wheal Rose, and the principal lodes are a continuation of those worked in that celebrated mine.

East Wheal Rose was divided into 120 shares of £50 each, and the total amount paid in dividends was £387,360, or 44 times the amount of the capital invested; this was paid during a period of 12 years, being an average of 367½ per cent. per annum. During this time shares were at a very high premium, and in September, 1845, they were saleable at £18,000 each, or 36 times their original cost. At this period blends and mounds were of no marketable value, and the price of lead was fully 25 per cent. less than it is now, so that at the present prices these large profits would have been very much larger.

Chiverton Wheal Rose has been inspected by several agents, who report most favourably as to the value of the property, and express their opinion that it will prove a very successful undertaking. A large sum has been expended in opening the mine. The adit level has been driven for a distance of 120 fms., and has intersected several lodes containing rich silver-lead ore. As soon as the levels are cleared, tribute pitches can be set, and early returns of ore will be made. It is confidently anticipated that, with a judicious outlay of capital, a very profitable mine will be opened up.

The mine is at present divided into 100 shares, a limited number of which can be obtained at £25 each.

The sum of £500 will be placed to the credit of the company towards a working capital, and a meeting will be held to elect a committee of management and officers, and to determine whether the company shall be continued on the Cost-book System, or registered under the Companies Act, 1862, with Limited Liability.

Applications for prospectuses and shares to be made to Messrs. T. FULLER and Co., 26, Change-alley, Cornhill, London.

## THE WICKLOW GENERAL MINING COMPANY (LIMITED).

Incorporated pursuant to the Companies Act, 1862.  
Capital £40,000, in 20,000 shares of £2 each; deposit 10s. per share.

**DIRECTORS.**  
JOHN CONOLLY, Esq., Kilmore, Ararat.

JOHN COX, Esq., Strathmore Hill, London.

JEREMIAH DUNNE, Esq., J. P. Fitzwilliam-square, Dublin.

SILAS EVANS, Esq., 11, Waring-street, Belfast.

WILLIAM R. PAYLE, Esq., 58, Townsend-street, Dublin.

JAMES F. LOMBARD, Esq., J. P., South Hill, Rathmines.

MICHAEL MURPHY, Esq., Beverton, Rathmines.

VALENTINE O'B. O'CONNOR, Esq., D. L., Beresford-place, Dublin.

(With power to add to their number).

**BANKERS**—The Hibernian Joint-Stock Banking Company, Dublin, and its branches.

The National Bank, Dublin and London, and its branches.







interfere with his trade. Now, the EMPEROR OF THE FRENCH had sufficient confidence in the people to leave the question of his worthiness to hold the eminent position he now occupies to their decision, and we cannot see any serious impediment to his adopting a similar course with respect to the Universal Exhibition of 1867. Let there be two intelligent workmen (engaged in the branch of industry in connection with which the awards are to be made) for each *arsenal* or capitalist, and let no juror be appointed directly or indirectly interested in any exhibit. By this means we should have bodies of jurors in whom the exhibitors would have confidence, and with whose decision even the unsuccessful would be content.

Were such a course pursued we should have, for example, a puddler passing judgment on a pig of iron, a collier deciding what life-saving apparatus was most to be relied upon, and a dealer in textile fabrics recording the relative merits of the products of various manufacturers, and we opine that these decisions would be far more convincing to the general public than those which have hitherto been given, where an ironmaster, naturally prejudiced in favour of the iron for which it is his interest to obtain a market, a coalowner prejudiced against the use of any apparatus other than that actually in use, and a cotton manufacturer, naturally inclined to give undue preference to the goods produced in his immediate neighbourhood, have been the judges.

#### REPORT FROM NORTHUMBERLAND AND DURHAM.

JULY 2.—The Coal Trade continues as last reported. On the whole, it is certainly dull, although in some of its branches a pretty good business is doing. The coking coal appears to suffer least from the general depression; and as the iron trade continues brisk, with a good prospect, a considerable quantity of manufacturing coal is got rid of within the district. A serious riot took place at Athington Colliery, near Morpeth, on Monday night. A number of the men employed at the works have been on strike in consequence of a dispute respecting wages, and having been discharged they were joined by a number of men from the surrounding collieries; and thus reinforced commenced breaking the windows of the resident viewer and those of the men who had refused taking part with them in the strike. A great number of the county police have been required to put a stop to their riotous proceedings, but the men are far from being settled or satisfied. We have not as yet sufficient information to give a detailed account of the cause of the outbreak, but the men evidently consider themselves much aggrieved by the treatment they have received. Such occurrences are very rare in the district indeed—a long period has elapsed since anything of the kind occurred; it is, however, much to be deplored. No further disturbances of a serious nature are expected to take place.

The new shaft, which has been in course of sinking for some time at Cuxlodge Colliery, is now fast approaching completion, only, we believe, about 100 feet remains to be passed until the coal will be reached. This shaft is for the purpose of "winning" the Low Main coal, or well-known steam coal of the central Northumberland coalfield. This point is considerably further south than any winning which has yet been made to this valuable seam, which is of excellent quality here, having been already proved by boring—at any rate, it has not been worked as yet so far to the south and west. This winning will, therefore, considerably extend what is known as the "Hartley district," and as the coal is of good quality and thickness, it will add much to the value of the Cuxlodge Colliery, which is the property of Mr. Boyer.

A correspondent of the *Northern Daily Express* gives some interesting particulars respecting coal mining in New South Wales. The steamers running from Sydney to the Hunter are from the celebrated yard of Messrs. C. Mitchell and Co., of Walker, and the engines from the factory of Morrison and Co., of Ouseburn. There is a Walsend coal, which, like the celebrated coal of that name on the Tyne, is considered the best, and eagerly purchased. The Mimi coal mines, employing 300 men, are well worth a visit. The machine-shop, fitted with various kinds of planing, boring, and other machines, from the establishment of Messrs. Buxton and Co., of Leeds, will repay an inspection; and a descent of the shaft, 100 feet to the spacious workings, will convince the visitor that this is a property second to none even at home. With the present appliances 1000 tons of screened coal can be brought to bank per day. One fact deserves notice in connection with Australian mines—it is, that no inflammable gas or choke-damp has yet been met with. The miners work each with a small naked oil lamp hooked to his cap, and seem quite free from every apprehension of danger. The Mimi coals are shipped on the Hunter, about six miles from the pit, and the largest portion re-shipped in the Sydney market for Shanghai and other great Chinese and Indian ports, which supply a great number of steam-ships. During one of the miners' strikes lately, two men wandering about Lake Macquarie, a large sheet of salt water about 13 miles from Newcastle, discovered a seam of coal opening out to the very edge of the water. Of course, they kept it dark—purchased the land at the Government price—formed a company, and are now working magnificent coal, under the title of the Cardiff Coal Company. The opening of the drift is not 10 yards from the lake. Seams 15 feet thick are being worked, and the coal won pronounced to be of most excellent quality. Coal is sold in Sydney, of the best quality, at 13s. 6d. per ton; and there is little doubt but competition will soon reduce it much lower. When it is said that a colonial dividend is easily paid, it will be understood that the coal business in New South Wales is at present very lucrative. Eight per cent. is a rate of interest easily procurable, and on good security, in Sydney.

#### REPORT FROM MONMOUTH AND SOUTH WALES.

JULY 2.—There is no material change to report in the state of the Iron Trade. The ironmasters are well off for orders, and at several works there are large contracts in hand on continental account. It is a well-known fact that Russian orders generally fall to the lot of this district, and for many years past the requirements of that extensive country have been large. At the present time there are three or four Russian specifications in course of execution, but the unsettled state of affairs as regards Poland, and the ominous signs of internal discontent in Russia proper, have interfered with the iron trade, and until these causes of uneasiness are removed a really substantial trade will not be done with Russia. In consequence of the strike in South Staffordshire, an increased quantity of puddled bars is being sent from Monmouthshire and South Wales to that country; and through this circumstance, and the general improvement evinced in the iron trade, the market quotations are firmly maintained. A second furnace has been put in blast at Cwmbran, by Messrs. Roper and Co., and the forge is to be started without delay by Messrs. Weston and Grier. The Gadlys Iron Company have now their four furnaces in blast, and at Aberdare, Cyfarthfa, Dowlais, &c., the works are in regular employ. The late drought seriously interfered with a few of the works, more especially Dowlais, and it appears that had not a considerable fall of rain taken place several branches of the extensive establishment would have had to be stopped. Since then it appears that arrangements have been made with the Merthyr Water Company, by which, should such an event occur in future, a supply of water will be obtained from the water company. The Coal Trade remains without any important alteration to report. The coalmasters are doing a fair business, but the high freights and the low prices continue to restrict the trade, and materially reduce the profits.

The railway traffic returns of a district is a good criterion of the state of trade, and in this respect South Wales shows a decided improvement for the last six months. The following are the total receipts of the local railway companies from Jan. 1 to the second week in June, and the receipts for the corresponding period of last year—

Llanelli Railway and Dock .....	£ 12,994 .....	£ 12,747
Monmouthshire Railway and Canal .....	99,267 .....	98,571
Rhymney .....	29,029 .....	18,571
Valle of Neath .....	47,616 .....	50,963
Taff Vale .....	129,538 .....	123,653

Another frightful colliery accident has just occurred in this district. On Friday morning last an explosion of gas took place at the Park Colliery, Baglan, near Briton Ferry, and out of the 14 men that were in the pit at the time only two escaped uninjured. Three of the hands, named Richard Evans, Thos. Griffiths, and Francis Jenkins, were killed on the spot, and the remaining nine were more or less injured. On Sunday afternoon Thomas Arnold, one of the nine, died from the effects of the burns received, and two others are, it appears, lying in a precarious state. Every possible attention has been paid to the sufferers by the medical gentlemen of the neighbourhood. Mr. Thomas Evans, the Government Inspector, and several of the proprietors, arrived at the colliery in a few hours after the accident, and a searching investigation is to be made as to the cause of the explosion. The pit has only recently commenced working, and the proprietors are Messrs. Edward Thomas, Scott, and Co. There are about 160 hands generally employed, but, as already stated, through some fortunate circumstance only fourteen were down at the time of the accident. The inquiry was commenced on Saturday afternoon, and after an order had been given for the interment of the bodies the proceedings were adjourned. Monday next has been fixed for resuming the enquiry, but it is very probable that another adjournment will take place.

A rather important case to colliery owners was heard at the Carmarthen Petty Sessions, on Saturday last. Mr. Thos. Evans, Her Majesty's Inspector of Mines for this district, summoned Mr. Benjamin Jones, proprietor of the Gorsach Colliery, Llanarthy, for having neglected to give notice of an accident, resulting in personal injury, from gas explosion at his colliery, pursuant to the 23d and 24th Vict., c. 151, s. 19. Mr. George Thomas appeared in support of the information, and Mr. J. B. Jeffries for the defendant. Mr. Thomas briefly explained the circumstances of the case, and then called Mr. Thomas Evans, who said he was the Inspector of Mines for the district. He knew Gorsach Colliery, of which defendant admitted he was the owner. In consequence of information which he received, he wrote to the defendant and to the Secretary of State, and in obedience to the instructions of the latter, he had taken these proceedings. In the letter to the defendant he explained that he had not received notice of the accident at the colliery by gas explosion. He had called defendant's attention to the provisions of the Act on a previous occasion, in consequence of a similar accident at the colliery. He got notice of the accident seven days after it occurred. He had visited the colliery since, and found it in a bad state. Mr. Jeffries admitted that an accident had occurred at the col-

liery, and one man had received slight injury; but the defendant's agent deemed it so trifling that he did not think it came within the meaning of the Act, and, therefore, no notice was sent. The magistrates inflicted a penalty of 20s., including costs. The defendant complained that it was a hard case that colliery proprietors residing at a distance should be obliged to send notice of an accident to the Government Inspector within 24 hours; and for six months of the year it would be impossible for him to do so. The magistrates said defendant ought to leave a competent person to act in his absence. The Bristol Bankruptcy Court, on Tuesday, W. Harris, Rhydfelen, came up for his last examination and order of discharge. By the consent of Mr. H. Brittan, on the application of the bankrupt's solicitor, Mr. Harris, the bankrupt, was allowed to pass his last examination. The order of discharge was adjourned by consent.

The Brecon, Merthyr, and Rumney Amalgamation Bill was finally passed on Friday last. This week the Lords Committee have sat on the proposed Dowlais branch of the West Midland, and the Bill is being vigorously opposed by the Brecon, Merthyr, and Rumney and other parties. There is no wish to throw the measure overboard, but the oppositionists claim facilities from the West Midland in return for the running powers granted to the latter over some of the lines in the locality. The Brecon, Merthyr, and Rumney Company oppose with the view of obtaining running powers over the Aberdare branch of the West Midland, and in this they are strongly supported by the chief interests concerned. If they should succeed, the freighters and the public generally will have the benefit of a shorter and more direct route to the Aberdare Valley, under the management of one company. The Swansea and Neath line is to be inspected to-day by the Government Inspector, and the opening it is expected will take place on July 14.

The arrivals at Swansea include—the Mary Blair, from Cherbourg, with 222 tons 1 cwt. of iron ore, for the Dowlais Iron Company; Fortuna, from Lisbon, with 80 tons of copper ore, for Knowles and Foster; Hannah Hicks, from Havannah, with 221 tons of copper ore, for J. H. Schröder and Co., London; Gold, from Cherbourg, with 150 tons of iron ore, for the Dowlais Iron Company; Ernest Augustine, from St. Malo, with 117 tons of zinc ore, for Rowlands; Harold Harfinger, from Kragerae, with 120 tons of nickel ore in bulk, and 4 boxes of ditto, for H. H. Vivian; Chilian Packet, from Coquimbo, with 45 tons of copper unwrought, in pigs, and 289 tons of copper ore, for Chas. Lambert, 90 tons of cobalt ore, unenumerated, and 4 tons of silver ore, for Henry Bath and Sons; Duke of Northumberland, from Cuba, with 640 tons of copper ore, for the Coburn Mining Company.

#### REPORT FROM NORTH AND SOUTH STAFFORDSHIRE.

JULY 2.—The demand for Manufactured Iron is quite equal to the means of supply, but the gradual extension of the area of the puddler's strike, and the determined aspect which the men present, with the equally decided determination of the masters not to grant what they say they cannot yield without sacrificing their profits, and working at a loss, afford but little hope of the speedy termination of this unhappy and disastrous dispute. There is also an extensive strike of the nailmakers of south-east of Staffordshire, and the adjoining parts of Worcestershire, in opposition to a proposed reduction of wages. The proceedings in connection with the bankruptcy of Mr. Samuel Griffiths, of Wolverhampton, were yesterday again adjourned at the Birmingham Bankruptcy Court, accounts being not yet made up. An application was made for the proceedings to be taken out of Court, on the ground that the creditors had come to an arrangement to that effect. It was, however, agreed to adjourn the meeting to July 31. The balance-sheet showed liabilities amounting to £6,744, of which nearly 10,000 were secured. Omitting the bad debts, and assets applicable to the secured debts, there was a deficiency of 59,361. The realisation of the assets, however, which left this balance when deducted from the liabilities, was considered doubtful.

Another bank at Hereford—the Hereford City and County Bank—has stopped payment, making three in that city within a short period. On the 23d ult., two men were working by a skip at a colliery at Donington Wood, Shropshire, belonging to the Littlehall Colliery when the skip was raised too high by the engine-man, and both were thrown out. One of them—Thos. Southall—was killed on the spot, his head was almost cut off, and his arms nearly torn from his body. The other—Wm. Lowe—had his leg broken, and his body much bruised. The result of an enquiry before a coroner's jury has been the committing of the engine-man for trial on the charge of manslaughter.

At the adjourned inquest respecting the deaths caused by a recent boiler explosion at Bilston, previously noticed in the Journal, Mr. J. Holcroft, engineer, gave evidence respecting the appearance presented by the boiler. He said he was satisfied that there was plenty of water in the boiler at the time, nor did he think the plates over the fire had become red hot nor weakened in any material degree. The only opinion he could form respecting the accident was that it arose from the pressure having from some means risen above that at which the boiler was ordinarily worked, and which was 30 lbs. to the square inch. With a view to avoid such explosions, Mr. Holcroft has suggested "that it would add greatly to the safety of steam-boilers, especially where a number are employed, and are heated by puddling and other furnaces, as in ironworks, if, in addition to the usual safety-valve, one of larger dimensions were placed on the steam-pipe as close as possible to the engine door, with an arrangement either by a screw or weight to ease the pressure of steam during stoppages. The engine driver should have strict orders whenever the engine stands to ease the valve, and as he must necessarily pass the door to go in or out of the engine-house, this would add very little to his labour. It is known that a great number of explosions occur during a stoppage of the engine, or soon after it has been put in motion, and as one reason for this is that the pressure on the boiler during the stoppage of the engine has a tendency more or less to accumulate above the safety-valve weight, although its diameter may be large, it is thought that a valve as proposed would meet this tendency, and would let off with less strain on the boiler the steam generated during stoppages of machinery."

Two colliers in the employ of Mr. W. H. Dawes pleaded guilty at the Dudley Police Court, on Monday, to having got out of a skip before it stopped. As they expressed their regret they were discharged with a caution, on paying the costs.

#### REPORT FROM DERBYSHIRE, YORKSHIRE, AND LANCASHIRE.

JULY 2.—Those engaged in the Iron and Coal Trades seem to think it a settled question that the period of dulness has not yet reached its climax. The American war is more than ever affecting the commercial industry of the country, with very little probability of an early change in the position of affairs. It is the general opinion in these counties that the ironmasters, at their preliminary meeting, came to a wise decision when they resolved not to alter their old rates, which have been in operation so long, though at the present price of manufactured iron the margin of profit is exceedingly small. There are enquiries for plates and rails for exportation, but only for the most urgent orders for immediate requirements. Indeed, there is very little speculation, but a large amount of underselling going on with needy makers. Derbyshire pig-iron, which is now mixed with Northamptonshire ore, is mostly required by the ironmasters in the county, most of whom have a market for it at their own works. There is a declining tendency in the rates for Scotch pigs, and prices are, consequently, very unsteady. We cannot look forward to any improvement in the Coal Trade until the next winter. The mildness of the two last seasons, coupled with the cotton famine, have induced a state of dulness which will require many months of good trade to revive. The real difficulty is to find a market for the produce. Coalmasters must of necessity find a sufficiency of work to keep their workpeople together, and thus their accumulations stock, and have a large amount of capital lying idle. We have had several failures, owing to the depression in the coal trade. The examination of Mr. Galloway, coalowner, Heath, will take place on Saturday, at the Sheffield Bankruptcy Court. The bankrupt will be opposed by several creditors. The Chesterfield and New Dunston Colliery, as we intimated last week, has come to grief, and the creditors of the concern cannot get their money. This is the second company which has been started and which has met a similar fate. The royalties to be paid to the owner of the mine are heavy and compulsory, the minimum rent, which has to be paid whether the mine is worked or not, being very large; moreover, the pit is nearly  $\frac{1}{2}$  mile from the railway station, and as the minerals have to be carted to the coal docks, an additional expense has to be incurred, which renders it very difficult to compete with those works which have rails running to the pit's mouth. Besides, joint-stock companies to be successful must be worked economically and cautiously. The Chesterfield and New Dunston Company has spent more money than they contemplated—we do not mean imprudently, but we hear that the difficulties attendant upon "getting" the coal are such that fresh capital will have to be raised. It is at present the property of joint-stock companies. The plant belonging to the North Derbyshire Mining Company is about to be offered for public competition, private negotiations having failed. The attempt, also, to raise a new company has not been successful, and now the property will have to be sold for what it will command in the market.

The following particulars will interest your readers, and is of some local importance. At the last sitting of the Academy of Sciences, M. Kuhlmann continued his communications touching the preservation of building materials. He stated that when the water of mineral hydrates cannot be displaced except by a high temperature, or when the substances themselves are anhydrous, the only means of preserving them, by that in case of fibrous or porous crystals, like those of argonite, stalaclite, &c., the penetration is much more perfect. A topaz, or a piece of rock crystal, will then assume the colour of garnets. A specimen of opal kept for some time in boiling tar, assumed a smoky blue tint, exactly resembling a piece of opal from Mexico, belonging to the Museum of the School of Mines. Metallic oxides and binary compounds, as also carbonates, are reduced (decomposed) by boiling tar. M. Kuhlmann having mentioned the preservation of certain parts of the walls of a chapel at Biarritz by black paint, Mr. Robinet said he had proposed that process thirteen years ago, and had called the attention of the city engineers to the inscription preserved of the inscribed clock in black paint on the public monuments in 1792 and 1793. These inscriptions are white now, but still perfectly legible, neither the action of the atmosphere nor the scraping of the walls, periodically effected, having succeeded in effacing them.

A new Railway Signal has been placed on the Midland Railway, at Kegworth, Derbyshire. It consists of a large clock placed on the top of a column. Only a quarter of the clock is shown, which is formed of ground glass, with red figures, 0, 5, 10, 15, and has only one hand. Attached to the clock is a long rod connected with a treadle about 16 ft. long, which lies along the inside of one of the rails. On the train passing over the treadle it is depressed slightly by the wheel flange, and the clock hand is set at liberty, and is so adjusted by a counterpoise that it turns to the figure 0. Immediately the train has passed over, the hand begins again to mark the time up to 15 minutes, when it is stopped, thus indicating to the next train exactly how long, up to 15 minutes, the preceding train has passed the signal. The same clock works two faces—one for the up and one for the down line. The utility of the signal in preventing accidents from trains running into each other is obvious. The inventor is Mr. John King, lace manufacturer, Heanor.

The applications for Letters Patent include Mr. John Griffiths, of Derby, manufacturer of ironworks, for improvements in machinery for puddling iron and steel; Mr. R. Mansel, of Colford, metallurgist, for improvements in the manufacture of iron and steel; and Mr. Thomas Dunn, of the Windsor Bridge Ironworks, engineer, for improvements in the construction and maintenance of the permanent way of railways.

The ore sold by the Mill Dam Mine, on Friday last (pay-day), weighed 79 tons, at 12s. 2d. per ton; this is more by 8 or 9 tons than was expected, thus showing the expectations of the shareholders to be more than realised. This quantity will be greatly increased every pay-day, when the shaft is 10 fathoms deeper, as the ground passed over in the bottom level is very rich. It is proposed to continue the sinking of the shaft 20 or 30 fathoms deeper; when this work is accomplished the mine will be one of the richest in the Peak of Derbyshire. The engine is almost completed; the pumps are on the mine, and will be ready for the engine to start in about three weeks. We would advise the shareholders to visit the mine; they will be highly pleased with their visit. The mining share market is very dull, and but little business has been done.

GEOLGISTS' OUGHT.—At the meeting, on July 6, Mr. E. Charlesworth, F.G.S., will read a paper on "Ammonites," and Dr. Richardson will read a de-

scription of the Excursion to Dudley. The paper on Ammonites will be illustrated by a fine series of fossils, to be exhibited by Mr. J. F. Collingwood, F.G.S.

BRISTOL TRADE AND MINING SCHOOLS.—The closing lecture of the session was delivered at this school on Friday evening, by Mr. Handel Cosham, F.G.S., President of the Mining School, "On Mining as it is, as it is, and as it ought to be." Mr. L. Brough, Inspector of Mines, presided, and there was a large attendance. The lecturer commenced by tracing the progress of mining from the time when coal was worked by means of open drifts on the basalt or exposed edges of the coal seams, and raised by means of horse-power by means of gins, and to the introduction of steam as a medium of raising coal, and also to the adaptation of the latter power to pumping purposes. The lecturer showed that the various implements referred to had produced corresponding benefits to persons engaged in coal mining, thus proving the general principle that all mechanical implements tended to the social and commercial advancement of the men connected with the calling. In speaking of coal mining, "as it is," the lecturer first described the arrangements usually adopted, referring to the larger size of pits as at present sunk; to the importance—the necessity in fact—of their being all lined or walled with brick or stone; to the advantages derived from their being fitted with guides or conductors; and directed attention to the very splendid application of pumping-power to one of the principal collieries at Clay Cross, which he (the lecturer) had lately seen, where a cylinder 10 ft. diameter, and pumps of 10 feet stroke, were worked by a beam composed of wrought-iron, weighing over 30 tons, which threw out 220 gallons of water every stroke, and was capable of raising 2000 gallons of water every minute, or 1,500,000 gallons in twelve hours. The lecturer then referred to the underground arrangements, to the introduction of gas into coal mines, and to the importance of the adoption of round ropes with central drums for pits of great depth. The extent to which Government control ought to be exercised was discussed; and, in conclusion, the lecturer showed that the happiness, the comfort, and the improvement of the condition of the men engaged in mining was an important element connected with the prosperity of that branch of national industry. The Chairman in proposing a vote of thanks to Mr. Cosham, said the course of instruction at the Mining School was to be remodelled, after a plan by Mr. G. C. Greenwell, C.E.

MANCHESTER GEOLOGICAL SOCIETY.—The monthly meeting of members was held on Tuesday, Mr. J. Dickinson, the President, in the chair.—Mr. J. Plant read a paper on "The Effects produced on Rowley Rag by Heat." Mr. Plant gave an interesting history of the attempts that have been made from time to time to utilize the basalt of Rowley, and he alluded to the experiments of Mr. Gregory Watts, Sir James Hall, Mr. Adcock, and Mr. Chance, of Birmingham, and showed that heat first of all reduced the stone to obsidian, almost as pure as in the natural state. When melted under circumstances, the process of which he detailed, it became as workable as glass. It could be run into moulds, and applied to building and decorative purposes; and with a mixture of glass it resembled some of the beautiful serpentine of Cornwall. When rolled into thin sheets it was semi-transparent, and in bright black sheets it was usable in the place of slate, and was said to be a cheaper article. Specimens of the simple obsidian, and the various phases it underwent in the process of manufacture, were exhibited on the table.—Mr. Berruti, of the Royal Geological Survey of Italy, who happened to be in the room, said that the specimens of obsidian produced were similar to that which came out of the volcano of Vesuvius, which it was allowed to cool under certain circumstances. If it was a large mass, the bottom was more compact, and of a different appearance to that at the top, which had cooled with greater rapidity. With regard to utilising this obsidian, the attempts that were being made towards that end in Italy were only successful to a certain extent.—A discussion followed on the crystallisation of trap and igneous rocks and granite, in which the President, Mr. Hull, and Mr. J. Atkinson took part.—Mr. Joseph Goodwin read a paper on "The Liberation and Drainage of Gases from Coal Mines." In the course of the paper Mr. Goodwin expressed an opinion that the cuttings and headways in coal mines did not drain and liberate gases to the extent that many had supposed. He also said that he believed no coal emitted carbonic acid gas, but that such gases came from metals, minerals, and other substances totally distinct from coal.\* After a brief discussion, a vote of thanks was passed to the President, and the proceedings terminated. \* We shall publish this paper in our Supplemental Sheet next week.

THE ASSOCIATION FOR THE PREVENTION OF STEAM-BOILER EXPLOSIONS.—At the last monthly meeting of the executive committee of this association, held at the offices, Corporation-street, Manchester, on Tuesday, Mr. L. E. Fletcher, chief engineer, presented his monthly report, of which the following is an abstract:—During the past month nine explosions have occurred, by which 11 persons have been killed and 21 others injured. In the case of one explosion at an ironworks, the boiler was 15 years old, the plates had been observed already being repaired, and it was stated that the seams at that place had been observed to be leaking only a quarter of an hour before the explosion took place; while, in addition, the shell was found to be patched in several places, and the plates cracked from the rivet-holes to the edge. It is concluded, therefore, that the boiler could not have been in good condition, the correctness of which it is thought derives some corroboration from the fact that the boiler alongside was found, at the time of making this examination, to be also leaking at the seams over the furnace, and that considerably, although not under pressure. In the explosion which occurred to a boiler under the inspection of this association, the boiler was an upright furnace one, working in connection with two others of similar construction to itself. It was heated by the flames passing over a furnace employed in preparing heavy forgings, the flames passing through an internal tube in the centre of the boiler, which ran directly from the top to the bottom. The extreme height of this internal tube was 26 ft. 2 in., but it was not of one diameter throughout. In order to admit of a brickwork lining to guard the flue above the water-line, the upper part was made of a larger diameter than the remainder, and attached to it by a flanged plate, which formed a "set-off" or shelf on which the brickwork rested; again, the lower portion of the tube had a bell mouth at the bottom, to afford an easy entrance for the flue. The length of the upper part was 11 ft. 4 in., and the diameter 2 ft. 3 in.; the length of the intermediate portion was 10 ft. 4 in., and the diameter 2 ft. 6 in.; while the length of the bell mouth was 4 ft. 6 in., and the diameter 2 ft. 6 in., the thickness of the plates being  $\frac{1}{2}$  in. throughout, and the blowing-off pressure 55 lbs. The explosion, which did not in any way disturb the original position of the boiler, resulted from collapse of the internal flue-tube, the collapse being confined to the intermediate portion just described, which it rent at about the middle of its length. A tube of such small dimensions as those just given—only 10 ft. 6 in. in length and 2 ft. 6 in. in diameter, made of plate  $\frac{1}{2}$  in. in thickness, if of good material and workmanship, as this one was, would be amply sufficient for a pressure of 55 lbs., if working under ordinary circumstances. This would suggest the conclusion that the water supply had been allowed to stand, the boiler was not examined, and the plates having been long heated and run short, but no positive indications of the plates having been long heated appeared on examination, though this may, however, have taken place on previous occasions without its being known. It is impossible to say whether the flue-tube was getting out of shape or not, since the boiler had been in such constant work, that no opportunity was afforded the association of making an internal and thorough examination for upwards of three years. This may not, therefore, be an improper time for calling attention to the importance generally of having spare boilers, so that a suitable opportunity may be afforded for examination, as well as for cleaning and repair. The boiler was found to be heavily encrusted with hard scale, which must considerably have tended to the over-heating and weakening of the flue, to which the vertical boilers are always prone, from the tendency of the ascending steam to cling around the tube and prevent the contact of the water. The inaccessibility of the gauges and fittings of these vertical boilers, on account of their height, is another disadvantage connected with them; and, indeed, a thoroughly good and safe furnace boiler must still be considered as a desideratum. In conclusion, it may be repeated, that this association cannot hold itself responsible for the condition of the boilers of those members who do not conform to its rules, and afford it opportunity of making a 'thorough' examination every year of each boiler under inspection. The fact, which had been allowed to elapse in the present instance, and during which period the boiler was unceasingly and severely working, and being heated by the intense flames passing from a reverberatory furnace, coupled with the use of very sedentary water—this quite precluded the possibility of the association keeping any check upon the condition of the boiler."

#### Tabular Statement of Boiler Explosions, from May 23, 1863, to June 26, 1863, inclusive:—

Date.	Description of Boiler.	Killed.	Injured.	Total.
May 29—Locomotive .....	.....	1	1	2
" 30—Cylindrical egg-ended (externally fired) .....	.....	5	12	17
June 2—Upright furnace (internally fired) .....	.....	0	0	0
" 13—Details not yet ascertained .....	.....	1	5	6
" 13—Ordinary single flue, or "Cornish" (internally fired) .....	.....	0	0	0
" 14—Cylindrical egg-ended (externally fired) .....	.....	1	0	1
" 14—Details not yet ascertained .....	.....	2	3	5
" 15—Marine .....	.....	1	0	1
" 26—Details not yet ascertained .....	.....	0	0	0
Total .....	.....	11	21	32

HOSKOLD'S MINERS' TRANSIT THEODOLITE.—The superiority of this instrument, as compared with the ordinary theodolite employed in mineral surveying, consists in its having a complete vertical circle, rendering it extremely well adapted for running out lines with great accuracy and speed. It has also a larger and more visible compass than the ordinary theodolite. It has a diagonal eye piece fitted by means of a reflector, by the aid of which the top of the shaft is made clearly visible from the bottom, uniting the surface and underground surveys correctly, and with perfect ease, without any magnetic aid, thus saving a vast amount of error and loss of time. It is fitted with three spiral levels, which can easily be adjusted for levelling purposes, thus forming a level, a dial, and a complete transit instrument.

PRESERVATION OF METALLIC AND VEGETABLE SUBSTANCES.—Mr. C. S. Duncan, of Inverness-road, Bayswater, has specified his invention for an improved compound or material for coating or covering metallic and vegetable substances, to preserve them from corrosion or decay. The compound is prepared as follows:—Marine glue, gutta serena, India rubber, shellac, copal, mastic, vegetable or mineral pitch or tar, or resin, or iodine, sulphur, crocus, asphaltum bitumen, or coal tar, are combined with one or more of the following substances:—Alumina, schist, quartz, silica, or iron, or pozzolano, sand, sandstone, cement (natural or artificial), chalk, glass, emery, tripoli, white oxide of zinc or of lead, or the litharge or red oxide of lead, in every case reduced to a fine and nearly impalpable powder, in proportions varying from one-fourth part to five parts of these powdered materials to one part or more of the before-mentioned plastic substances. The materials are then to be heated, so as to reduce them to a plastic or semi-liquid state. The metal to be coated with the compound is also heated to a moderate temperature, and while heated the compound is to be applied with brushes, or by any convenient method. Immediately after the coating has been laid on the metal, wood, or other body to be preserved, and before it is allowed to cool, the compound is to be covered with a layer of one or more of the minerals powders before mentioned, in a wet state, in order entirely to remove all stickiness or tack. When the compound has become cool, the surface may be brought to a smooth or polished exterior by rubbing it with any substance ordinarily used for polishing metallic surfaces. In cases where necessary, the metals or woods may receive a further protecting coating or varnish, composed of copal, cuprous or other varnish, or naphtha, paraffin, camphine, petroleum, or other mineral, or vegetable oil, or silicate of potash, or of soda and sulphuric acid, mixed with one or more of the above-named pulverised substances. The coatings may be repeated if it is desired to obtain extra thickness and protection. The mineral earthy substances must in all cases be thoroughly washed and freed from impurities, and then be killed, to decompose and destroy vegetation. For a very hard coating the substance should be composed of seven or eight parts of silica, or pozzolano, or chalk instead of silica, to four parts of mineral pitch or tar, and two parts of vegetable or Stockholm tar. The proto-



five compound may be applied to the preservation of ropes or strands of hemp, or to any fibrous or textile materials or fabrics.

## MINING NOTABILIA.

[EXTRACTS FROM OUR CORRESPONDENCE.]

**NORTH WHEAL CROFTY.**—There are several points of great interest shortly to come off in this mine. The 160 and 170 fms. levels east are now approaching the ore ground gone down in the bottom of the 160. The 170 west is in a lode 10 ft. wide, producing good work for tin. The last sale of tin for the month realised 7000. This mine is rapidly approaching a paying state.

**GREAT DEVON AND BEDFORD (Colcharton).**—Captain G. Richards reports that they are progressing with their operations; an excellent steam-engine is constructed for, which, together with engine-house, office, smith's shop, store-house, &c., are to be completed by October 1.

**PROSPER UNITED.**—The 70 west is worth 4 tons per fm., and the winze below the 60 fm. level, 6 tons per fm. The mines continue to look well.

**CHIVERTON WHEAL ROSE.**—This property is attracting the notice of capitalists in the locality of the mine, from the fact of its immediate connection with East Wheal Rose, the stratification being identical with and containing the same lode as that celebrated mine. The promoters of this company have adopted a wise course in the issue of shares, and giving all persons interested an opportunity of joining in the future management; and the more particularly keeping it free from the obnoxious item of free shares, which is the ruin of many companies under the Limited Liability Act.

**EAST WHEAL LOVELL.**—There is a course of tin in the flat-rod shaft, sinking below the 26, upwards of 100 ft. per fathom. The mine is working at a good profit, and is destined ere long to take a prominent position in the Dividend List.

**WHEAL PROSPER.**—Mitchell's shaft is sinking in a good lode, and the levels driving westwards it are looking well, showing as if a good piece of tin ground will be opened out on communicating these levels with the shaft, and which will also facilitate in developing the extensive run of unwrought ground west of Mitchell's, for about ¼ mile on the course of the lode.

**EAST WHEAL GRENVILLE.**—The lode in the shaft still continues to be worth between 5 and 6 tons of good ore per fm. In a few days the captain intends to drive east and west on the lode, when it is expected to be worth about 3 tons both east and west of the shaft. The district in which East Grenville is situated is considered the best in Cornwall. The mine presents fine prospects.

**TYWANNIALE.**—The parcel of copper ore sold last week weighed 261 tons 6 cwt, 2 qrs., the amount being 12091. Os. 8d.

**ST. DAVID'S GOLD MINING COMPANY** have ordered a machine for washing alluvial deposits, which will be completed within a fortnight, and fully at work. In the Mine Elizabeth lode sulphide of gold has been discovered, combined with the sulphide of lead, of which there is a large quantity.

**WEST WHEAL TREVELYAN.**—In a few fathoms deeper this mine will be just as deep as the adjoining mine, Owen Veau, when the latter mine met with its rich deposits of ore, by which it was enabled to pay dividends. The shaft, within the last week, has improved, it being now worth 1 ton per fm., with every appearance of further improvement.

**ST. JUST CONSOLS MINE** surprises everybody. The encouraging appearances, excellent position, and splendid tin lodes, with a beautiful 24-ft. water-wheel, and eight heads of stamps, lead one to imagine it cannot do otherwise than turn up a trump, and soon will be selling large quantities of tin monthly. The lode in the guide shaft is presenting most favourable appearances, and the river lode is looking well. Stones of tin ore broken may be seen at No. 12, Bucklebury, London. The stamps continue working, stamping tin, and the dressing-floors will shortly be in a position to dress all the tin stuff on a very cheap scale, as the mode is so altered of late that the round baddies will do away with very considerable labour and expense, and I find such a buddle is now preparing for the floors in this valuable mining property. Looking at the locality of the property, and also all being worked by water-power, the most favourable results may shortly be anticipated.

**NEW WHEAL MARTHA.**—Captain James Secombe has been appointed the superintending manager of this mine.

**NORTH DOWNS.**—The shareholders in this mine must have been much pleased to find their shares rise from 30s. to 50s. in just two days. The wonder is that the shares should have been neglected so long, as a little improvement would place the mine again in the Dividend List, and when most probably the old price of 6s. would be again reached. The prospects of the mine are at the present time more cheering than they have been for a long time past, an important improvement in a winze having taken place within the last few days.

**WORVAS DOWNS.**—Active operations are being carried out in this mine in the erection of steam stamps. The mine is looking very well.

**EAST PROVIDENCE** is looking very well indeed, and promises to become one of the best mines in the neighbourhood.

**CONSOLIDATED COPPER MINES OF COBRE.**—The great improvement in this company's property (advertised to in the Journal of June 20) seems likely to prove of greater importance than was at first supposed. Referring to the newly-discovered north lode, the manager, in the last advice received, hopes that Mr. Petherick will give instructions to Capt. Stephens "to prosecute the driving of two of the upper levels, and at least one level below, so as to open the lode as soon as possible, as we may meet with rich ores in the upper levels, as was the case on the north lode, west of the slide." Mr. Ferrar's letter, dated June 7, states—"I am exceedingly glad to inform you that the last accounts about the lode in the 120 cross-cut are still more flattering, and there is a great improvement in the lode going west."

**FATAL ACCIDENT AT DEVON GREAT CONSOLS.**—An accident occurred on Monday night at the Great Consols Mine, when a man named Roger Vale, who resides at Delawar, near Gunnis Lake, met with instantaneous death while at work underground, by the falling of a stone from the kibble. He was working at a "night core," and had only been underground a few minutes when the accident happened.

**BOILER EXPLOSION AT SOUTH CRENVELL.**—On Friday last several persons had a most extraordinary escape from a violent death at the South Crenvel Mine. The pumping-engine boiler burst while fourteen persons were standing on it, and notwithstanding that the explosion was so violent as to force several pieces of the boiler through the roof of the engine-house, only three persons received any injury. A more remarkable escape has been rarely witnessed. Capt. Chequer received some injuries about his chest and arms; John Roberts, of Godolphin, was scalded about the legs and feet; and John Sims, of Kew, also received some slight injury.

**RAILWAY CALLS.**—The amount falling due in July is 725,680l., making the total called during the seven months of the present year, 4,604,179l.

## WEATHER PREDICTIONS.

Sir,—Many of your readers have requested me to forward my predictions weekly during the coming weeks of harvest. I will endeavour to oblige them. In my last I informed you the first week in July the weather would be variable, with winds about the 2d and 3d. Well, I think this is correct. From the 7th to the 11th, fine; from the latter date to the 20th, changeable, with winds about the 7th, 13th, and 14th. In my next I shall give some information of the weather for the month of August.

26, Throgmorton-street, July 2. GEORGE SHEPHERD, C.E.,  
Author of the "Climate of England."

## The Railway System of the World.

**TESTIMONIAL TO WILLIAM HENRY JAMES, C.E.**  
In recognition of his unrequited public services in connection with the founding of our magnificent railway system, by the gratuitous assistance he rendered his late father, William James, Esq., of Warwick, land agent, ironmaster, and civil engineer, in surveying, levelling, the L. & N. W. Railway, and Manchester Railway, with its branches to Bolton, &c., in the years 1821, 1822, and 1823, the first established for engine passenger transit; and for his having allowed the late George Stephenson and his partner, Mr. Losh, of Newcastle-upon-Tyne, the liberty of using his invention of the introduction of Tubes into the boilers of (their) locomotive engines, as shown by an agreement, dated Sept. 1, 1821, which introduction of Tubes, as first suggested by Mr. William Henry James, and since adopted, modified, and perfected by the engineering profession, is well known to every engineer to have caused the entire success of the modern railway system, and lastly, in compensation for his loss of his patrimony of £20,000, as settled by will, as well as private property of great value, by the ruin of his father, in 1823, while so engaged, and while so assisting him in laying the foundation of the great railway system of the world, which has already conferred such inestimable benefits upon mankind.

As a guarantee, the following eminent engineers and gentlemen have already attached their names in furtherance of this testimonial, to which it is expected many others will soon be added, viz.:

GEORGE HENRIE. SIR CHARLES FOX.  
SIR JOHN MACRELL. PETER BARLOW.  
THOMAS BRASSER. WM. SCHOLFIELD, M.P.  
JOSEPH FARRER. JOHN FARRER.  
WM. MARSDEN, M.D.

PERSONAL REFERENCE.  
Mr. RICHARD PARKES, Mining Journal, 26, Fleet-street.

Mr. RICHARD A. BROWN, Mechanics' Magazine office, 166, Fleet-street.  
It is respectfully requested that all contributions may be made to Messrs. CUTTS and Co., bankers, London, who have kindly consented to receive such subscriptions; and any sums offered will be carried to the credit of "Subscriptions for W. H. James, C.E.," and will be held at his disposal.

A complete list of subscribers, together with the amount of their donations, will be published as soon as they shall reach an adequate amount.

MANCHESTER.  
MR. W. HANNAH: OFFICES, ROYAL INSURANCE BUILDINGS, KING STREET, MANCHESTER.

MINING, SLATE QUARRYING, INSURANCE, AND GENERAL STOCK AND SHARE DEALER.

A monthly investment Circular on application.  
Sharedealing in this office is limited to special mines, and companies whose pretensions have been personally investigated, and to the dividend-paying mines ordinarily dealt with on the London market, and for the latter purpose arrangements have been made for the earliest information from the great mining districts. There can be little doubt that in dealing with well-established, dividend-paying mines, investors, without any greater risk than accrues from purchase of ordinary or house property, receive a much larger regular profit than from any other species of investment, free from all trouble, and paid in the most convenient form for those who have limited incomes—viz., every two or three months; while those who enter into new undertakings, such as prospective mines, have the knowledge that nothing which is not bona fide, and has stood the test of thorough examination, is submitted to them. It cannot, of course, be expected that where the profits are so enormous that these latter investments should be entirely free from risk. All that can be done is to ascertain the respectability of the management, and the value of the prospect. This done, no speculations are likely to be so valuable as those in mining operations; it being no uncommon occurrence for shares to rise in value 200 and 300 per cent. in a few months.

MR. JAMES STRIDE, Secretary of the former Mining Exchange.  
Hall of Commerce, begs to say that he is a COMMISSION AGENT for mining and water shares.—Address, Jamaica Coffee House, St. Michael's-alley, Cornhill.

## LIST OF SUBSCRIBERS TO THE TESTIMONIAL TO WILLIAM WILLIAMS, ESQ., OF TREGULLOW, CORNWALL.

Amount already advertised	£450 8 6	Capt. Richard Pryor, Redruth	£1 1 0
Rev. Thomas Phillips	5 5 0	Capt. Ralph, St. Day United	1 1 0
William Mitchell, Esq., Newham	5 5 0	Capt. Cock, ditto	1 1 0
H. Michael Williams, Esq.	5 5 0	Capt. Oats, ditto	1 1 0
George Williams, Esq.	5 5 0	Capt. Gilbert, ditto	1 1 0
E. H. Hawks, Jun., Esq.	2 12 6	Capt. Blight, ditto	1 1 0
Rev. Salter Rogers, Gwennap	2 2 0	Capt. Martin, ditto	1 1 0
Peter Clymo, Esq., Liskeard	2 2 0	Capt. R. Pryor, Jun., Trevelyan	1 1 0
Mr. John Kendall, Redruth	2 2 0	Capt. W. S. Garby, Redruth	1 1 0
Capt. Abner Ralph, Nant-y-wyn	2 2 0	Mr. Henry Andrews, Truro	0 10 6
T. Harry Tilly, Esq., Falmouth	1 1 0	Capt. Eliza Trewartha, Scorer	0 10 6
T. Mitchell, Esq., M.D., Redruth	1 1 0	Capt. Pope, Redruth	0 10 6
A. Friend, per Mr. Broad, Falmouth	1 1 0	Capt. John Grenfell, Nth. Downs	0 10 6
Mr. Nicholas Whitley, Truro	1 1 0	Mr. John Pearce, St. Day United	0 10 6
Mrs. Tregellas and Son, Truro	1 1 0	Mr. A. C. Stephens, Truro	0 10 0
Mr. J. H. Beale, Truro	1 1 0	Mr. John Brewer, Truro	0 10 0
Capt. Thos. Mitchell, Nant-y-wyn	1 1 0	Mr. J. R. Netherton, Truro	0 10 0
Mr. Urm, Wheel Rest	1 1 0	Mr. Bennett, Helston	0 10 0
Rev. A. Vandrey, St. Agnes	1 1 0	Mr. J. Latimer, Plymouth	0 10 0
Mr. John Sims, Redruth	1 1 0	Mr. H. Morcom, Carnarvon	0 10 0
Mr. Thomas Grenfell, Calstock	1 1 0	Mr. Thomas Mills, Redruth	0 10 0
Mr. Athas. Pryor, Nant-y-wyn	1 1 0	Operative miners of the Gwennap	0 10 0
Mr. Edwin Cook, Redruth	1 1 0	Mines	8 6 11
Mr. Frederick Dabb, Redruth	1 1 0		
Total	£320 10 11		

The PRESENTATION of the TESTIMONIAL will be made on TUESDAY, the 14th inst., at Tabby's Hotel, Redruth. Dinner will be provided by Mr. Tabby, at 15s. each (including wines), which is ordered to be on the table at 3 o'clock precisely. Tickets may be obtained of Mr. TABB any day before the 10th inst.

Dated St. Day, July 2, 1863. B. MATTHEWS, Hon. Sec.

## WANTED.

**RUNCORN SMELTING WORKS, NEAR LIVERPOOL.**—Mr. PEMBROKE JONES having succeeded Messrs. James Stubbs, Price, and Co. in the above works, is in WANT of ROUGH LOW PRODUCE LEAD ORES, and would be happy to receive samples from the various mining companies, addressed Lead Works, Runcorn, Cheshire.

**TRELOGAN LEAD MINING COMPANY (LIMITED),** NEAR HOLYWELL.

WANTED, A RESIDENT CAPTAIN for the above MINE. He will be required to TAKE THE ENTIRE SUPERINTENDENCE OF THE SURFACE ARRANGEMENTS, AND FULLY TO DEVELOPE THE RESOURCES OF THE PROPERTY. To a thoroughly experienced and competent man liberal terms would be offered; none other need apply.—Address, Wm. MARTIN, Esq., managing director, Trelogan, near Holywell.

WANTED, A CLERK, in a MINING OFFICE, who understands book-keeping, and one that can open a set of books upon the limited liability principle.—Apply by letter, addressed "W.," 34, Bloomsbury-square, London.

WANTED, for an ENGLISH MINING ESTABLISHMENT on the Continent, a FOREMAN CAPABLE of SUPERINTENDING PLATE LAYING, and KEEPING a LOCOMOTIVE MINERAL LINE in good WORKING ORDER. Age, not over 35 years. Must be a thoroughly practical man.—Address, "A. B.," Mr. Cowdell, solicitor, 21, Abchurch-lane, London, E.C.

WANTED, for an ENGLISH MINING ESTABLISHMENT on the Continent, a YOUNG MAN well ACQUAINTED with RAILWAY SURVEYING, and SUPERINTENDING EARTH WORKS and MASONRY. None need apply who have not had several years' experience on a Welsh or Scotch line.—Address, "A. B.," Mr. Cowdell, solicitor, 21, Abchurch-lane, London, E.C.

WANTED, A 60 or 65 in. cylinder PUMPING ENGINE, with suitable BOILERS. Also, a 40 in. cylinder PUMPING ENGINE, with BOILERS.—Apply to Mr. GEORGE H. CARDOSO, 15, New Broad-street, London; or to Mr. W. PAGE CARDOSO, Camborne Cornwall.

**IRON PUMP PIPES WANTED,** near a railway, for carriage to pits in Cumberland: TWENTY-FOUR FATHOMS of 11 in. or 12 in. CAST-IRON PIPES, with flanges fitted to joints, and set to work in a 40 fm. pit.—Apply, with particulars, to "No. 12 Box," Post-office, Whitehaven.

**LEAD SETT.**—THE ADVERTISER has a VALUABLE LEAD SETT, situated in one of the best lead districts in CORNWALL. There are several lodes known to be in the sett, a mine now making considerable returns close to the boundary of his sett, and on the same lode. The advertiser WISHES to have a PERSON to JOIN HIM, so as to bring out the mine; he may have an interest on liberal terms.—Apply to "G. P.," Post-office, St. Austell, Cornwall.

**TO MINING CAPITALISTS.**—A gentleman has expended about £2000 in opening a PROMISING LEAD MINE, and erecting machinery for pumping and drawing. The sett contains five lodes, three of which have been extensively wrought on, with favourable results. The PROPRIETOR, being anxious to have the mine thoroughly proved (which can now be done for a very moderate sum) would be WILLING to MAKE ARRANGEMENTS with a gentleman to DISPOSE of ONE-QUARTER of the mine, on favourable terms, for the purpose of putting the mine in good working order. The mine is situated about 1½ mile from a railway station, and in a mineral neighbourhood.—Further information, and full particulars, will be given on application, prepaid, to "R. H.," Post-office, Llanidloes, Montgomeryshire.

**TO CAPITALISTS AND MINE SPECULATORS.**—WANTED TO BORROW, a SUM of TWO THOUSAND POUNDS, for the WORKING of a RICH and EXTENSIVE COPEL MINE, in the ISLAND OF CORSIKA, with the OPTION to PURCHASE ONE-FIFTH PART for the same amount, on the most favourable terms.—Answers, from principals only, to be addressed Mr. CHATELAIN, 12, Rue Monnaie, Franco Marsellais.

**TO SPECULATORS.**—THE ADVERTISER, a retired mine captain of great practical experience in Cornwall, is in a POSITION to GIVE the NAMES of SIX PROGRESSIVE MINES which are SAFE in his opinion (founded on a perfect knowledge and reliable data) to ADVANCE HUNDREDS PER CENT. in a few MONTHS. Terms, commission on profit.—Address, "Investor," Mining Journal office, 26, Fleet-street, London, E.C.

**METAL TUBES AND CYLINDERS.**—THE ADVERTISER has COMPLETED an IMPROVEMENT in MACHINERY for MANUFACTURE of SAME, which is protected at home and abroad. He is now DESIROUS of JOINING with a CAPITALIST to FURTHER the UNDERTAKING, which promises to be a valuable one. A machine is ready for view.—Apply to Jno. KENDRICK, 30, Easy-roy, Birmingham.

**AN INTEREST of about ONE THOUSAND POUNDS in PAID-UP SHARES, or a portion thereof, TO BE DISPOSED OF, in an OLD ESTABLISHED and PROVED PAYING SLATE QUARRY, in CARNARVONSHIRE, which is held on an exceedingly low royalty, by a private company, working under the Limited Liability Companies Act. Most satisfactory response given for disposal.—Address, "M. N. O.," care of Mr. Williams, stationer, Carnarvon.**

**STAMPING MACHINERY.**—TO BE SOLD, TWO SETS of STAMPS, with driving gear, pulleys, clutch box, &c., in complete working order.—Apply by letter to "J. L.," Messrs. Terry, Stoneman, and Co., No. 6, Hatton-garden, London, E.C.

**TO BE SOLD, BY PRIVATE CONTRACT,** the STEAM ENGINE now standing on TREFUSIS MINE, situate near the south turnpike-gate on the Penryn road, in the parish of Redruth. A 30 in. cylinder, 6 ft. stroke, equal beam, with BOILER about 8 tons.—For further particulars, and to treat for the same, apply to Capt. Wm. RICHARDS, Bank House, Redruth.

**FOR SALE, THREE BOILERS,** 41 ft. by 6 ft.; 19½ in. FORGING PUMP, 14 in. LIFTING PUMP, HAND PUMPS, T. box, pumping crank, lifting screw, pit chain, and other colliery material.—Apply to Mr. JOHN FARLER, Nallaea, near Bristol.

**DESIRABLE MINERAL INVESTMENTS TO LET.**—1. A SETT of YELLOW SULPHURET of COPPER, with several hundred tons quarried, and some 40 tons crushed, showing veins 6 in. to 4½ ft. wide, of remarkable richness. 2. A finely developed SET of GREY COPPER. Assay, 64 per cent. Veins 2 to 17 in. wide. 3. A MINE of LEAD and BLENDE, or ZINC, 2½ ft. wide. Some 5 to 10 tons quarried. These setts have great water-power, which will supersede the use of steam-power for crushing, and very easy access for shipping.—Address, Mr. F.—, Mining Journal office, 26, Fleet-street, London, E.C.

**FISHER BROTHERS AND CO.,** FIRE BRICK MANUFACTURERS, STOURBRIDGE. BLAST FURNACE BRICKS of the MOST DURABLE QUALITY SUPPLIED to ANY SPECIFICATION.

**OLD WASTE GUTTA PERCHA and INDIA RUBBER** BOUGHT, at highest prices, for cash, by Wm. TAYLOR, Jun., No. 51, Corporation-street, Manchester.

**MONEY.—CONTRACTORS AND OTHERS** can be ACCOMMODATED with LOANS, DISCOUNTS, &c.—Apply to Messrs. WILKINSON and Co., monetary negotiators and arbitrators, &c., 25, Bireh-in-lane, Cornhill, London, E.C.

**CAPT. W. C. PAULL,** from London, is again about to VISIT some MINES in the COUNTY OF CORK, particularly those of ROARING WATER and CROOKHAVEN.—His long and practical experience of mining, at home and abroad, is highly appreciated in Ireland.—June 28, 1863.

**MR. BRENTON SYMONS, M.E.,** is NOW in the COUNTY CORK. Gentlemen requiring INSPECTIONS or SURVEYS of MINERAL PROPERTY there may address Post-office, Ballydeob.—June 30, 1863.

**SOUTH GRYLLS MINING COMPANY (LIMITED).**—Notice is hereby given, that the REMAINING SHARES of this company are BEING ALLOTTED in the order in which they are applied for. By order of the Board.  
95, Gracechurch-street, London, E.C., June 19, 1863.

**CHARLES DAVEY AND CO.,** SAFETY FUSE MANUFACTURERS, ST. HELEN'S JUNCTION, LANCASHIRE.

## British Association for the Advancement of Science.

**BRITISH ASSOCIATION FOR THE ADVANCEMENT OF SCIENCE.**—THE NEXT MEETING will be HELD at NEWCASTLE-UPON-TYNE, COMMENCING on WEDNESDAY, the 26th of August, 1863, UNDER the PRESIDENCY of Sir W. G. ARNETH, F.R.S.  
Notices of communications intended to be read to the association, accompanied by a statement whether or not the author will be present at the meeting, may be addressed to G. GRIFITH, M.A., Assistant General Secretary, Jesus College, Oxford; or to Capt. Noble; AUGUSTUS H. HUNT, Esq.; R. C. CLAPHAM, Esq., Local Secretaries, Newcastle-upon-Tyne.  
WILLIAM SPOTTISWOODE, M.A., F.R.S., General Treasurer.

19, Chester-street, Belgrave-square, London, S.W.

## British Association for the Advancement of Science.

**BRITISH ASSOCIATION FOR THE ADVANCEMENT OF SCIENCE.**  
MEETING, 1863, at NEWCASTLE-ON-TYNE.

## ARTICLES FOR EXHIBITION.

The Local Executive Committee intend holding an EXHIBITION during the visit of the British Association, in AUGUST NEXT, in the Central Exchange News Room, and are desirous of obtaining Mining and Engineering Models, Specimens especially illustrating the Manufactures of the Neighbourhood—such as Iron, Lead, Pottery, Glass, Clay Wares, Chemicals, &c.; also, Specimens of manufacturing Processes from any other locality, Philosophical Apparatus, Microscopes, objects of Natural History, Pictures, Statuary, and other Works of Art.

As it is of the greatest importance that the committee should receive early intimation of intended contributions, anyone willing to exhibit should communicate with the committee with as little delay as possible, in order that the various applications may receive the necessary consideration.

The value of articles of importance should be stated, so that insurance may be effected, and the committee will undertake the risk and care of all contributions whilst in their hands. The carriage of approved contributions will be paid by the committee.

A. NOBLE, } Local  
R. C. CLAPHAM, } Secretaries.  
A. H. HUNT, }

## COLONIAL BANK.

Subscribed capital £200,000  
Paid-up capital 500,000

The Court of Directors of the Colonial Bank hereby give notice that, in pursuance of the provisions of the Charter, a HALF-YEARLY GENERAL MEETING of proprietors will be HELD on WEDNESDAY, the 8th of July, 1863, at the London Tavern, Bishopsgate-street, at Twelve for One o'clock precisely, to receive the report of the proceedings of the Corporation.

The transfer books of the Corporation will be closed on the 27th inst., and re-opened on the 30th of July. By order of the Court of Directors,  
No. 13, Bishopsgate-street Within, June 15, 1863. C. A. CALVERT, Sec.

## THE ANGLO-BRAZILIAN GOLD COMPANY (LIMITED).

The liability of the shareholders in limited to the amount of their shares, the company being registered under the Joint-Stock Companies Acts, with limited liability. Capital £100,000, in 100,000 shares of £1 each.—Deposit 2s. per share on application. (This will include the deposit both on application and allotment.)

DIRECTORS.  
HENRY HAYMEN, Esq., Chairman.  
R. EDWARDS, Esq., C.E.  
WILLIAM F. FOSTER, Esq.  
ROBERT KEEKE, Esq.  
W. F. D. STEPHENS, Esq.  
JOHN WORMALD, Esq.

AGENTS IN BRAZIL—Messrs. John Moore and Co., Rio Janeiro (Messrs. J. Bramley-Moore and Co., Liverpool).

MANAGING AGENT—Capt. Thomas Treloar, Managing agent and chief engineer of the Don Pedro North del Rey Gold Mining Company.

BANKERS—The English and Irish Bank, Limited, 25, Poultry, E.C.

BROKER—Frank Wiestler, Esq., 2, Copthall-court.

SOLICITORS—Messrs. Howard, Doulman, and Lowther, 141, Fenchurch-street.

SECRETARY—John E. Dawson, Esq.

OFFICES.—9, LIVERPOOL STREET, NEW BROAD STREET.

## PROSPECTUS.

This company has been formed for the purpose of purchasing and working a gold mine in Brazil, which has been carefully examined by Capt. Thomas Treloar (the chief mining engineer to the Don Pedro North del Rey Gold Mining Company, Limited), whose detailed report and description of the property will shortly be forwarded to the shareholders.

It has been proved that each shareholder in the Don Pedro North del Rey Gold Mining Company shall be entitled to an allotment of the same number of shares in the Anglo-Brazilian Gold Mining Company, Limited.

The preliminary expenses will be strictly confined to matters of actual outlay, no promotion money being paid to anyone.

## PORTUGAL IRON AND COAL COMPANY (LIMITED).

Capital £100,000, in 10,000 shares of £10 each.  
Deposit, £1 per share; £1 per share more to be paid on allotment, and the remainder as required, in calls of not more than £1 per share each, at intervals of not less than two months.

HIS EXCELLENCY MARSHAL DUKE OF SALTANHA, Lisbon.

GEORGE FREDERICK YOUNG, Esq., London—CHAIRMAN.

NATHANIEL GOULD, Esq., London.

CLARK IRVING, Esq., London.

J. D. POWLES, Esq., London.

JOSEPH RIVOLTA, Esq., London.

The Hon. JOHN L. O'SULLIVAN, Lisbon.

(With power to add to their number).

AUDITORS—Messrs. Harding, Pauslin, Whinney, and Gibbons, Bank-buildings.

BANKERS.  
In London..... The Imperial Bank, Lombury.

In Lisbon..... Messrs. Medlicott and Co.

CONSULTING ENGINEER—Thomas Rumball, Esq., 150, Leadenhall-street.

SOLICITORS—Messrs. Maples, Maples, and Teesdale, Frederick's-place.

BROKER—Spencer Herapath, Esq., Angel-court.

SECRETARY (pro tem.)—Mr. Henry Lloyd Morgan.

TEMPORARY OFFICES.—No. 2, WALBROOK BUILDINGS.

Concessions have been granted by the Government of Portugal of a mineral district 10 leagues in length, in all respects favourably situated, and most unexpectedly rich in iron and coal. An agreement has been made for the purchase of these concessions, and for the purpose of working them advantageously this company is formed.

It would be impossible to comprise within the limits of an advertisement the many interesting facts on which the undertaking is founded. They are detailed in a "statement," which, with prospectuses, may be obtained at the temporary offices of the company, No. 2 Walbrook-buildings, and will be found well deserving of attention.

But the directors would not have felt justified in submitting this undertaking to the public if they had not previously satisfied themselves, by carefully-conducted investigations, of the accuracy of the representations on which they base its claims to public confidence.



**IMPORTANT SALE OF FREEHOLD AND LEASEHOLD ESTATES,** near Plymouth, in the several parishes of ST. BUDEAUX and BUCKLAND MONACHORUM, in the county of DEVON, and LANDRAKE, in the county of Cornwall, portions of the property presenting favourable prospects in regard to undeveloped mineral wealth, and other portions furnishing eligible sites for the erection of dwelling-houses in a highly picturesque locality.

**MR. JOHN ANDREW, Auctioneer, WILL SELL, BY AUCTION,** on Friday, the 31st day of July, 1863, at the Globe Hotel, Plymouth, at three o'clock for Four P.M. precisely, in the undermentioned lots, the following very VALUABLE PROPERTY:—

Lot 1 will comprise all that compact FARM, called MOOR, otherwise MOOR AND BELLES, situate in the parish of ST. BUDEAUX, DEVON, held for the remainder of a term of 500 years, of which 317 years, or thereabouts, are unexpired; together with FOUR FREEHOLD FIELDS, or CLOSERS OF LAND, formerly parts of King's Tamarion and Cuddip's tenements, and containing a good FARM HOUSE, with suitable FARM BUILDINGS, and about 57 A. 2 R. 15 P. OF ORCHARD, MEADOW, ARABLE, and PASTURE LAND, the whole being let to a highly respectable tenant, for a term of seven or fourteen years, from Lady-day next, at the annual rent of £142.

This desirable farm is about one mile from Saltash, and two miles from Plymouth and Devonport, and is adjacent to the turnpike-road as well as to Keyham Lake, where manure of every description can be obtained. There is also a QUARRY on the estate, let to the way next, at the annual rent of £1.

The fertile nature of this property, with its proximity to Plymouth and Devonport, greatly enhance its agricultural value, while the beautiful views which portions of the estate command of the Hamoaze, Mount Edgumbe, and other delightful scenery, present unusual attractions for the erection of villa residences. The present residence is about a mile from the parish church, is plentifully supplied with water, and the rates and taxes are exceedingly moderate.

Lot 2 will comprise all that FREEHOLD ESTATE, called COOMBE, situate in the parish of BUCKLAND MONACHORUM, DEVON, containing about 35 A. 2 R. 27 P. of watered MEADOW, ORCHARD, and ARABLE LAND, with a good FARM HOUSE and FARM BUILDINGS thereon. Adjoining, and comprised within the above measurement, is a MANURE and EDGE TOOL MANUFACTORY, worked with water-power, with store and yard, the whole being let to a highly respectable tenant, for a term of seven or fourteen years, from Lady-day next, at the annual rent of £75.

The farm adjoins the main road between Jump and Buckland Town, and is within one mile from Looe line, on the navigable River Tavy (where town soil and other manure can be obtained), two miles from the Horrabridge station on the Plymouth and Tavistock Railway, six miles from Tavistock, and eight miles from Plymouth and Devonport.

The above estate has a right of pasturage on Roborough Down, and is well watered. It presents favourable indications of much mineral wealth (a copper lode having been discovered near the farm-yard), which with the copious supply of water could be doubtless worked with much advantage, and at a trifling cost.

Lot 3 will comprise all that FREEHOLD ESTATE, called LANTALLACK, situate in the parish of LANDRAKE, in the county of CORNWALL. This desirable farm consists of an excellent FARM HOUSE (calculated for a respectable family), with suitable FARM BUILDINGS, and about 82 A. 2 R. 33 P. of superior PASTURE, MEADOW, ORCHARD, and ARABLE LAND, now in the occupation of Mr. John Adams, at a rental of £160 per annum, and whose tenancy expires at Michaelmas next.

There are two labourers' cottages, with gardens, attached to this estate. The farm is situate within one mile of Landrake village, and in the immediate vicinity of Tideford, at the head of the navigable River Lynher (where farm produce can be shipped and manure obtained), five miles from Saltash, six miles from Callington, seven miles from Liskeard, and three miles from the St. German's station of the Cornwall Railway.

There are strong indications of a valuable mineral lode running through this estate, and applications have been made by respectable persons desirous of working the same, but which the present owner (who is invested in his capacity of trustee with a power of sale only, without any power of granting mining leases) has been obliged to decline.

The several estates can be viewed on applying to the tenants, and any further information may be obtained from Mr. JOHN ANDREW, land agent and surveyor, Ridgeway, near Plymouth; or from Messrs. ROGERS, BEVES, and BROWN, solicitors, Manor Office, Bidehouse, where maps of the property can be seen.—Dated June 26, 1863.

#### THE BISHOPWEARMOUTH IRONWORKS, SUNDERLAND.

**MESSRS. FULLER AND HORSEY** are instructed by the Trustees of the Derwent and Consett Iron Company (Limited), and under the sanction of His Honour Vice-Chancellor Kindersley, to SELL, BY AUCTION, on Thursday, August 20th, 1863, at Two o'clock in the afternoon precisely, at the Queen's Head Hotel, Newcastle-upon-Tyne, in one lot (unless an acceptable offer be previously made by private contract).

The BISHOPWEARMOUTH IRONWORKS, a highly important FREEHOLD and COPYHOLD PROPERTY, at Sunderland, together with the costly MACHINERY, PLANT, and UTENSILS in trade.

The land occupied comprises a site of 12 A. 1 R. 2 P., or thereabouts, and has a frontage of about 300 yards next the Hylton Road, immediately opposite the extensive glass works of Messrs. Hirstley and Co.

The North-Eastern Railway (Pensher branch) forms the western boundary, a siding on which affords railway communication with the docks at Sunderland, which are little more than a mile distant, with the various ironworks in the district, and with all parts of the kingdom; the Lambton Colliery Railway to the River Wear intersects the property, and the Hutton Colliery Railway forms the eastern boundary. From each of the colliery lines rails have been laid on to the works, where extensive coal depots are formed, thus insuring a constant supply of coal direct from the pits on the best terms.

The average price of coal does not exceed 5s. per ton. Labour is abundant and cheap, and scrap iron is brought as ballast by the numerous return colliers from the southern and other ports, at almost nominal freight.

The increasing local demand for iron must also not be overlooked, so that whether for obtaining the supply of raw material and labour, or for the facility of delivering the manufactured produce, few similar establishments possess so many advantages.

The works, as at present arranged, are capable of producing annually about 15,000 tons of rolled iron, 200 tons of large forgings, and 2500 tons of castings, but by the introduction of steam-hammers the production of large forgings (for which there is a great demand) may be materially increased.

The tenure of the land (principally) is freehold and copyhold (nearly equal to freehold), but some parcels of accommodation land are held by a yearly tenancy.

The new line of railway which will shortly be opened from the Lambton pits to the Wear will be of great advantage to this property, as the present colliery line will then be abandoned (except for the supply of these works), and the site doubtless obtained, thus removing the intersecting line.

The outlay made in buildings and machinery has been very large, certainly not less than £70,000 or £80,000 having been expended, a considerable portion within the last 15 years, when the new works were erected.

These comprise rail, merchant, and puddling mills, fitted with three trains of rolls, shears, squeezers, hammer, and saws, with all the requisite gearing, driven by THREE HIGH PRESSURE STEAM ENGINES, the largest of which is of 120 horse power; NINE STEAM BOILERS, TWENTY-ONE PULVERISING FURNACES, and NINE MILL FURNACES, the whole under a lofty roof, covering 35,000 superficial feet, supported on iron columns; ONE DOUBLE and TWO SINGLE REFINERIES, with BLAST ENGINE and THREE STEAM BOILERS, TWO HAULING ENGINES, with BOILERS, winding drums and wire-ropes; an open shed, with CORRUGATING MACHINE, PUNCHING MACHINE, and DRILLING MACHINE, worked by a HORIZONTAL STEAM ENGINE, sheet warehouse, smiths' shop, time office, and two bull-dog kilns.

The old works comprise the MILL, fitted with two trains of rolls for puddled bar and merchant bar, two pairs of shears and hammer, with gearing; HIGH PRESSURE STEAM ENGINES, and THREE BOILERS; THREE FORGES, with hammers, furnaces, cranes, and THREE STEAM ENGINES, with BOILERS; an engineers' fitting shop, with tools; brass foundry, with three pot furnaces; a spacious and lofty IRON FOUNDRY, with air furnace, two cupolas, cranes, loam mill, and blast fan, worked by a HIGH PRESSURE STEAM ENGINE and BOILER; three core stoves, a light-pattern makers' shop, with pattern lofts over; time-keeper's office, and draughtsmen's room; a deep well, affording an ample supply of excellent water, raised by two powerful pumps; a brick and cement reservoir, capable of containing 180,000 gallons; smiths' shops, capital stabling for sixteen horses, SEVENTEEN BRICK COKE OVENS, and yard; managers' residence, offices for clerks and principals, iron warehouses, and various accessory erections; a 30 ton weighbridge, over which all wagons pass on entering.

The yards and works are intersected by railways laid down, connecting the various sections of the works with each other, and the whole with the lines of the North-Eastern and colliery railways; and water and gas laid into all parts of the buildings.

At the western extremity of the property is a large and convenient depot (formerly a stone quarry) for the waste from the works.

The works may be viewed till the sale by cards only, which, with printed particulars and plans of the property, may be obtained (post free on receipt of two stamps) of JOSEPH ANDERSON, Esq., solicitor, Newcastle-upon-Tyne; Messrs. R. P. and H. FURNESS, solicitors, Newcastle-upon-Tyne; Messrs. HUTTON and LUGG, solicitors, Darlington; JAMES CROWDY, Esq., solicitor, 17, Serjeant's Inn, Fleet-street, London, E.C.; Messrs. FIELD, ROSECOE, FIELD, and FRANCIS, solicitors, 36, Lincoln's Inn-fields, London, W.C.; Messrs. COLEMAN, TURQUAND, YOUNG, and Co., accountants, 16, Tokenhouse-yard, London, E.C.; and of Messrs. FULLER and HORSEY, 13, Billiter-street, London, E.C.

Particulars may also be had at the *Midland Counties Herald* office, Birmingham; at the *Glasgow Herald* office, Glasgow; at the office of the *North British Advertiser*, Edinburgh; and at the Station Hotel, Carlisle.

**TWO GUNPOWDER AND ROPE MANUFACTURERS, AND CAPITALISTS.**—FOR SALE, BY PRIVATE CONTRACT, by executors, Lot 1.—DAVEY'S PATENT RIGHT for "IMPROVEMENTS IN BLASTING POWDER," granted 1858. Also, for "IMPROVEMENTS IN THE MANUFACTURE OF GUNPOWDER AND EXPLOSIVE COMPOUNDS," granted 1862.

The blasting powder weighs from 20 to 30 per cent. less than ordinary gunpowder, and can be rendered at the same price. Invaluable for mines, slate quarries, and collieries. Testimonials given.

Also, the LICENSED POWDER MANUFACTORY, STEAM ENGINE and MACHINERY, with MAGAZINE, STORES, OUTBUILDINGS, and PREMISES, comprising 7½ acres of ground adjoining the sea at Nanckeside, Illogan, Cornwall. The premises are held for 99 years, determinable on the decease of three lives, aged 18, 13, and 9 years.

Lot 2.—Also, the PHOENIX ROPE WALK, situate at Illogan highway, in ILLOGAN aforesaid, 240 fms. long (90 fms. being slate roofed), with all necessary houses, lotts, &c., and about 7 acres of pasture land. Also, AGAR COTTAGE, GARDENS, ORCHARDS, &c. Lot 2 is held for 99 years, determinable on the decease of two lives, aged 52 and 27 years.

Also, a POLICY of ASSURANCE, effected in 1849, in the Scottish Equitable office, for SEVEN HUNDRED POUNDS, payable on the decease of the younger life. Annual premium, £12 17s. 11d. Bonus declared, £177 15s. 10d.

For particulars, apply to Messrs. HODGE, HOCKIN, and MARRACK, solicitors, Truro, Cornwall.

**LIME WORKS, SOUTH STAFFORDSHIRE.—TO BE LET** ON ROYALTY, the very VALUABLE PITTS and LIME WORKS, situate at HAY HEAD, near WALSALL. These well-established works are fitted up with the most complete and conveniently arranged MACHINERY, capable of raising 500 to 1000 tons of limestone per week. Two shafts have been sunk down, and the underground workings opened out, ready to commence raising stone immediately.

The works communicate by tramway with the Birmingham Canal, at a short distance from the pits.

The lime produced from this mine is peculiarly adapted for hydraulic purposes, and was used in the recently-executed tunnel of the Birmingham Canal Company, at Nether-ton, near Dudley, and also in the locks communicating with the Staffordshire and Worcestershire Canal, at Church Bridge, near Stafford, an inspection of which will prove its superiority over other lime for such purposes. It has also been used by the Regent's Canal Company, London.

Application to be made to Mr. SAMUEL BAILEY, mining engineer, the Pick, Walsall.

#### COUNTIES OF GLAMORGAN AND MONMOUTH.

TO CAPITALISTS AND OTHERS.

**SALE OF VALUABLE FREEHOLD LAND, AND COPYHOLD FARM.**

**MR. H. W. HARRIS** has been favoured with instructions from the trustees under the will of the late Anthony Hill, Esq., to OFFER up for PUBLIC AUCTION, at the Bath Hotel, Merthyr Tydvil, on Tuesday, July 7th, 1863, at Twelve o'clock at noon (subject to such conditions of sale as shall be then produced), the following VALUABLE PROPERTY:—

All that COPYHOLD FARM AND LANDS, called TYR-PENTIS, situate in the parish of Trevelin, in the county of Monmouth, now in the occupation of Morgan Davies, as tenant thereof, and containing 61 acres, more or less, bounded by lands of John Hurley, Esq., the representative of the late Capel Hanbury Leigh, Esq., Miss Webb, Mr. H. Williams, and the late Chas. C. Williams, Esq.

This farm contains all the SEAMS of COAL and IRONSTONE found in the Pontypool district, is 2½ miles from Pontypool town, 1½ mile from the West Midland Railway, ¼ mile from the Western Valley Railway, and about 10 miles from the port of Newport. The rental of the farm is now £200 per annum, and is customary-hold.

Also, all that SLANG OF LAND, situate in the parish of Merthyr Tydvil, commencing at an old well called Baran Llywion, and running parallel for nearly a mile with and adjoining to the River Taff, and terminating about the point near Upper Bridge, on the basin tramroad. The average width is about 33 yards.

This piece of land is especially adapted for the erection of powerful machinery, for which it was intended by its late proprietor, having an excellent command and right of water from the River Taff, there being a fall in the river of nearly 30 ft.

The property also lies contiguous to the Glamorganshire Canal, to which there is a right of way across.

The West Midland and Taff Vale Railways run through the property. The abundant facilities of obtaining any description of coal in addition to the fine water-power, renders this property one of the most eligible for the erection of any description of iron or other manufacture.

The distance from Merthyr is only 6 miles, and from the port of Cardiff 18 miles, and it is opposite to the junction of the Taff Vale and West Midland Railway, near Quaker's Yard.

The above properties may be viewed on application to Mr. RICHARD HEPPELL, surveyor, Merthyr, who will show the premises; and printed particulars may be had of Messrs. UPPS, JOHNSON, and UPPS, 20, Abchurch-lane, London; Mr. J. W. ROSS, solicitor, Merthyr Tydvil, and of the auctioneer, 140, High-street, Merthyr Tydvil, where a plan of the different properties can be seen.

Merthyr Tydvil, June 2, 1863.

**WORKING COLLIERY AND PLANT, at PLATT BRIDGE AND WIGAN.**

**MESSRS. WILLIAM PEARSON AND SON WILL SELL, BY AUCTION,** on Friday next, the 10th of July inst., at Four for Five o'clock P.M. prompt, at the Eagle Hotel, Wigan (unless previously disposed of by private treaty, of which due notice will be given).

The whole of the TENANTS' RIGHT to the COLLIERY at PLATT BRIDGE, belonging to the Bryn Moss Coal and Cannel Company (Limited), in the township of Ince, near Wigan, with the WORKING PLANT, PUMPS, ENGINES, BOILERS, MACHINERY, TOOLS, RAILS, and a branch railway to the Leeds and Liverpool Canal, and all the requisite appliances, now on the premises for a working colliery.

The colliery is held for lease of 60 years, from the 1st day of February, 1859, and comprise the mines lying underneath the freehold estates of Mr. Parsons and others, in extent 85 A. 2 R. 8 P. statute measure, or thereabouts.

The quality of the mines is well known, and the property being bounded by and in communication with the North Union Railway and the canal, the facilities of conveyance to all parts of the country are superior to any colliery in the district. The royalty is £30 per foot per Cheshire acre, with a fixed annual rent of £200, which sum merges into the royalty rent.

The tenants have a right by their lease to purchase, at any time before the 14th July, 1865, the mines, royalties, and 13 statute acres of the surface, for £2000, all rents and royalties paid in the meantime being allowed for against interest on the purchase money.

Mr. HEATON, at Platt Bridge, or Mr. LIVESAY, mineral surveyor, will point out the colliery and premises.

For further particulars, apply to the auctioneer, or Messrs. LACE, MARSHALL, and GILL, solicitors, 1, Union-court, Castle-street, Liverpool.

#### FARM AND SLATE QUARRY, SOUTH DEVON.

**AN EXCELLENT FARM, with LARGE and VALUABLE SLATE QUARRY,** in the parish of UGBOROUGH, near IYBRIDGE, DEVON, twelve miles from Plymouth, and close to three important stations on the South Devon Railway.

**MR. JOHN MALLET WILL SELL, BY AUCTION,** on Monday, the 18th day of July next, at the Lion Inn, Iybridge, at Two o'clock for Half-past, the above property, either together or in the following lots (subject to such conditions as will be then and there produced), viz.:—THE FEE SIMPLE of all that BARTON or FARM, called WOOD and BLOWDEN'S, situate in the parish of UGBOROUGH, DEVON.

Lot 1 comprises a good FARM HOUSE, with all necessary FARM BUILDINGS, and SEVENTY-SEVEN ACRES (the same more or less) of superior ORCHARD, MEADOW, ARABLE, and PASTURE LAND, in the occupation of Mr. Richard Cole, as tenant thereof, for a term of 7 or 14 years, from Lady-day, 1861.

Also, a SLATE QUARRY, measuring about 4 acres of same estate, which has been in work about a century, and which is now held under lease for a term of 21 years, from the 24th June, 1853, by E. T. Roe, Esq., M.D., producing a large quantity of slate of very superior quality.

About 50 acres of the farm contain slate of the best description, and several sets could be granted thereout, the rock being inexhaustible.

Lot 2.—TWO superior COTTAGES, one of which is fit for the residence of a respectable family, having eight rooms, and the other cottage adjoining four rooms, with necessary outbuildings. TWO good GARDENS, and a FIELD of LAND, containing 3 A. 0 R. 23 P. or thereabouts.

The whole of the property is tithe free, and land tax redeemed.

The above property being full of slate rock, within a mile and a half of the Stowford siding, and about two miles from Iybridge and Kingbridge-road stations on the South Devon Railway, only twelve miles from the port of Plymouth, and nine miles from Totnes, gives great facilities for sending slate to all parts of the kingdom.

Such an opportunity for a spirited capitalist or a company to enter largely into the slate trade is very seldom to be met with. From the great facilities for sending off the goods by rail and water, it is quite certain that a large profit can be realised.

To persons desirous of mercantile investment, this estate presents an opportunity of more than ordinary advantage.

The farm is pleasantly situated, and many good sites for building can be found on the property.

The market towns for cattle are Iybridge, two miles (monthly); Modbury, three miles (ditto); and Totnes, nine miles (ditto).

There is good trout fishing in the neighbourhood. Foxhounds are kept at Iybridge, and hunt the country immediately around.

For viewing, application may be made to Mr. HENRY SOREN, the owner, at Wood Cottage, on the property, on Tuesdays, Wednesdays, and Thursdays. Plans and particulars can also be obtained of him; of the auctioneer, Ashington, near Totnes; or of Mr. WALTER FRIEND, solicitor, Post-office Chambers, Exeter.

#### NEWPORT, MONMOUTHSHIRE.

TO IRONFOUNDERS, ENGINEERS, AND OTHERS.

**MESSRS. CORNELIUS EVANS AND SON WILL SELL, BY AUCTION,** without reserve, on the premises, outside the engine house, at the east side of the docks, Newport, on Thursday, the 18th of July, 1863, commencing at Two o'clock precisely.

TEN NEW NARROW GAUGE IRON TURN-TABLES, weighing altogether 44 tons. TWO NARROW GAUGE COAL WAGONS, in good condition.

A LARGE WOODEN BARGE, of the best construction, 50 ft. long by 25 ft. 8 in. beam, capable of carrying 200 tons, and suitable for a landing stage, dredger, and various other purposes.

And a COAL SHIPPING MACHINE, worked by steam, capable of shipping 800 tons in a working day.

The barge may be viewed at her moorings, in the Liswerry Pill, opposite the docks. For particulars, and to view the other lots, apply at the Dock Office, or at the auctioneer's offices, 15, High-street, Newport, Monmouthshire.—July 1, 1863.

#### IMPORTANT TO CONTRACTORS AND OTHERS.

**SALE OF RAILWAY PLANT, LOCOMOTIVE BALLAST ENGINE, with TENDER attached, &c.**

**MR. WILLIAM DEW** has been instructed by Edward Preston, Esq., to SELL, BY PUBLIC AUCTION, on Tuesday, the 21st of July, 1863, at Liswerry Pill, on the Conway and Llanrwst Railway, commencing at Eleven o'clock A.M. to wit:

A POWERFUL LOCOMOTIVE ENGINE, with TENDER attached, in first-rate working order; TWELVE CONTRACTORS' WAGONS, complete; 52 pairs of wheels, axles and pedestals; a flat to carry 8 tons, and a small boat to follow; a quantity of wheelbarrows and wheeling planks; a large quantity of wrought iron bars and scrap iron; castings, corrugated iron, several lengths of 3 in. metal piping, old sleepers, quarry tools, hurdles, larch posts, &c.; also a very useful mare, quiet in harness, with an Irish jaunting car and set of harness.

Descriptive catalogues may be had at the principal hotels in the vicinity: of Mr. Mansel, Liswerry Pill; and of the auctioneer, British Hotel, Bangor. May be viewed three days prior to the sale.

#### HIGHLY IMPORTANT TO SLATE QUARRY PROPRIETORS AND BUILDERS.

**EXTENSIVE UNRESERVED SALE OF MACHINERY, STEAM ENGINE, ONE HUNDRED THOUSAND MANUFACTURED SLATES, as well as the INTEREST in the LEASE of the BVLCH SLATE QUARRIES, situate at DOLWYDELEN, near LLANRWST, in the county of CARNARVON.**

**MR. W. DEW** has been favoured with positive instructions to SELL, BY PUBLIC AUCTION, on Wednesday, 29th July, 1863, commencing at Eleven o'clock A.M. precisely, at the above-named quarry, distant nine miles from the railway terminus at Llanrwst, five miles from Bettws-y-Coed, and about four miles from the Festiniog Quarries.

The whole of the very VALUABLE MACHINERY and WORKING PLANT, in lots, all of which will be found to be of a superior description, and in excellent working order.

They consist of 4 saws, frames 12 ft. by 8 ft.; 9 sawing tables, 3 planing machines, valuable shafting; a fine WATER WHEEL, 30 ft. diameter, 3 ft. breast, with iron buckets; a splendid HORIZONTAL HIGH PRESSURE STEAM ENGINE, about 15 horse power; 11 tram wagons, 6 iron skips, 1360 yards lineal tram rails, turn tables, iron pipes, 8 in. diameter; a quantity of wrought and cast iron, balk and other timber, and about TWENTY-EIGHT TONS MORE SLATES.

At the commencement of the sale the present company's INTEREST in the LEASE in the said BVLCH QUARRY will be disposed of, which will give the purchaser the advantage of buying such of the machinery and plant as he may require.

These quarries have now been worked for some years, and considering the limited capital that has been employed, the annual yield of slate has been unusually large. A further small outlay is only required to render this one of the most productive and profitable quarries in the country.

On Thursday, the 30th July, 1863, the whole of the STOCK of MANUFACTURED SLATES and SLABS lying in the Trefri wharf, will be sold by auction, without reserve, at Eleven A.M., consisting of 8000 Princesses, 40,000 Countesses, 8000 Viscountesses, 30,000 Ladies, 12,000 Doubles, 35 tons Rags, and about FIFTY-FOUR TONS OF PLAINED SLABS of various dimensions and thicknesses.

Descriptive catalogues of the whole of which may be had of the principal hotels in North Wales; of GEORGE HADLEY, Esq., 20, St. Helen's-place, Bishopgate-street, London; Mr. BROTHWOOD, Llanrwst; and from the auctioneer, British Hotel, Bangor. The whole on view any day up to the day of sale.

#### In Chancery.

**SCHIELE v. BRAKELL AND OTHERS.**—VICE-CHANCELLOR SIR J. STUART, on the 29th May last, GRANTED an ORDER RESTRAINING the DEFENDANTS, the NORTH MOOR FOUNDRY COMPANY, OLDHAM, from RECEIVING, RETAINING, or OPENING ANY LETTERS or LETTER ADDRESSED TO "C. SCHIELE," or "SCHIELE AND CO.," "C. SCHIELE AND CO.," "PLATT and SCHIELE," or OTHERWISE ADDRESSED to the PLAINTIFF, CHRISTIAN SCHIELE, or to the PLAINTIFFS' FIRM of C. SCHIELE AND CO.

ANY PERSONS who, since September, 1859, have WRITTEN or APPLIED to the ABOVE ADDRESSES on the subject of Mr. Schiele's inventions, as enumerated below, or on any other subject concerning him, are REQUESTED to COMMUNICATE at once WITH HIM, not addressed to Oldham, but to MANCHESTER, as at foot.

Centrifugal pumps, steam saws, turbine steam engines, steam pumps, feed pumps, variable expansion gear, lubrication, governors for steam-engines or water-wheels, air pumps or gas exhaustors, hydraulic transmission of power, hydro extractors, contact rear, continuous wheel-cutting machinery, continuous screw-cutting machines, nut-tapping machines, oscillation break for governors for railway trains, &c.; applications of the anti-friction curve to footsteps of shafts, to cocks, valves, &c.; hydraulic weighing machines, quartz crushing machinery, crushing mills, revolving hammers, stone dressing machinery, and applications of wave-power.

C. SCHIELE, 20, Milton-street, Stockport-road, Manchester.

#### Tavistock Ironworks, Devon.—(Established 1804.)

**GILL AND CO., ENGINEERS AND IRONFOUNDERS,** MANUFACTURERS OF STEAM ENGINES AND BOILERS. CHAINS OF ALL DIMENSIONS. STEELED SHOVELS to any pattern. EVERY DESCRIPTION OF CAST and HAMMERED IRON for MINING, MANUFACTURING, and AGRICULTURAL PURPOSES.

HAMMER MILLS. EDGE TOOL MANUFACTORY. FOREIGN MINES SUPPLIED ON LIBERAL TERMS. VARIOUS DESCRIPTIONS OF SECOND-HAND MACHINERY CONSTANTLY ON HAND.

N.B.—AGENTS for TANGY'S PATENT HYDRAULIC LIFTING JACK, and WESTON'S PATENT DIFFERENTIAL PULLEY BLOCKS.

**ELLIS LEVER, INVENTOR and MANUFACTURER of the IMPROVED SAFETY BRATTICE and FLEXIBLE TUBING,** 28, MARSDEN SQUARE, MANCHESTER. MANUFACTORY, WEST GORTON WORKS, MANCHESTER.

#### UNDER SONSTADT'S PATENTS.

**MAGNESIUM** in the lump, hitherto sold in this country at from four to seven guineas per ounce, is now offered at EIGHTEEN SHILLINGS PER OUNCE. DISTILLED MAGNESIUM in lump, THIRTY-SIX SHILLINGS PER OUNCE. It is intended to offer the metal at a much lower price as soon as its manufacture is begun on a considerable scale, but it has been considered that the scientific public should be accommodated as early as possible, even while the new process is being carried out on a laboratory scale only.

Agent:—HENRY HUGHES, Falcon Works, Loughborough.

**TITANIC IRON MINES FOR SALE.**—These celebrated and EXTENSIVE MINES are situated at EGGERSUND, near SOGGENDAL, in NORWAY, and have been worked for about three years, producing TITANIC IRON ORES of the RICHEST and PUREST QUALITY, and there are now ready for shipment upwards of 3000 tons of ore. The mines are only a short distance from the shipping port, and there are good roads for the carriage of the ore to it.—For further particulars, apply to Mr. NISSEN, 5, Cleveland-terrace, Middlebro'-on-Tees.

**FOR SALE, BY PRIVATE BARGAIN,** the whole of the MATERIALS on CALDER GLEN UNITED MINES (LIMITED), in the parish of LOCHWINNOCH, SCOTLAND, consisting of houses, sheds, about 20 fms. of 6 in. pumps, with doorknees, working barrels, valves, buckets and rods, &c., complete; a large horse whim, with shaft, with rope 70 fms. long, and kibble; timber available in engine-shed, including castings, divisions, footways, &c.; with the whole furniture, tools, &c., on the mine. For further particulars apply to Mr. WILKINSON, writer, Lochwinnoch, liquidator to the company, with whom written offers will require to be lodged, betwixt and the 25th July current.—Lochwinnoch, July 1, 1863.

**TO BE SOLD, THE LEASE of a VALUABLE SLATE and FLAG QUARRY, in NORTH WALES.** The quarry has been in work upwards of 50 years, and the vein is inexhaustible. The slates and flags are very durable, and in great repute in the Principality. The quarry is within eight miles of a railway, with a large local sale.—For particulars, apply to Mr. WALTER EDDY, mineral surveyor, Fron, Llangollen.

**TO BE SOLD, a great bargain, a WATER WHEEL,** equal to new, 40 ft. diameter, 8 ft. breadth; also, several other smaller wheels.—Apply to Mr. W. B. HARVEY, St. Michael's-terrace, Plymouth.

**DINAS FIRE-BRICKS.**—MESSRS. FREDERICKS AND JENNER beg to offer these well-known bricks, either at their Dinas Bridge or Kidwelly Works, and can safely recommend them as EQUAL, if not SUPERIOR, to ANY FIRE-BRICKS MANUFACTURED, having the highest testimonials from the largest copper smelters and consumers in the world.—Full particulars, with testimonials, prices, &c., can be had on application to their agent, Mr. GEORGE YORNO, Briton Ferry, South Wales; the Dinas Bridge Brick Works, Glyn Neath; Kidwelly Brick Works, Kidwelly; or Messrs. EASTWOOD, Belvidere-road, London.

Adopted by the Governments of Great Britain, Spain, Denmark, Russia, Brazil, East and West Indies.

**EASTON'S PATENT BOILER FLUID,** FOR REMOVING AND PREVENTING INCrustation IN STEAM BOILERS, LAND and MARINE. P. S. EASTON and G. SPRINGFIELD, Patentees and Sole Manufacturers, 37, 38, and 39, WAPPING WALL, LONDON, E.C.



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MANUFACTURERS OF  
IMPROVED FLAT AND ROUND CHAINS AND WIRE ROPES, FOR  
MINING PURPOSES.  
BOULKS, KIBBLES, BOILERS, IRON BLOCKS, AND BLOCK CHAINS,  
RAILWAY COUPLINGS, HORSE TRACES, CRANE CHAINS,  
AND SHIP'S CABLES.  
COALPORT, SHROPSHIRE.

International Exhibition, 1862.

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ENGINES AND MACHINERY.  
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For "Good arrangement, good workmanship, and practical success."

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MANUFACTURERS OF PORTABLE AND FIXED STEAM ENGINES, MA-  
CHINERY FOR PUMPING, HOISTING, GRINDING, SAWING, AND AGRICUL-  
TURAL PURPOSES, &c., adapted for any part of the world.

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79, LOMBARD STREET, LONDON.

Descriptive, illustrated, and priced catalogues free per post.

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**AVELING AND PORTER'S PATENT TRACTION**  
ENGINES AND LOCOMOTIVES FOR MINERAL RAILWAYS.  
For prices, illustrated description, and testimonials, apply to AVELING and PORTER,  
engineers, Rochester, Kent.

**CARSON'S ORIGINAL ANTI-CORROSION PAINT.**  
It is extensively used at home and abroad for all kinds of  
OUT-DOOR WORK,

and will be found a most efficient and economical preservative for  
HEAD GEARING OF COLLIERIES, MINES, WOOD AND IRON WORK  
of all descriptions; also  
TRUCKS, WAGONS, ETC., ETC.,

Lasting twice as long as the best common paints in exposed situations, being  
manufactured expressly for external purposes.  
ANY PERSON CAN LAY IT ON, and its superiority may be inferred from the op-  
eration with which its use has been met by those interested in the sale of ordinary  
paints. (No grinding is requisite.)

ALL COLOURS.

FIVE CWTs. AND UPWARDS, CARRIAGE FREE, TO ANY STATION IN ENGLAND AND WALES,  
AND PER STEAMER TO MOST PORTS IN ENGLAND AND SCOTLAND. Patterns, prices, also  
copy of testimonials, will be sent on application to

**WALTER CARSON AND SONS,**

(Successors to the Inventors)

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NO AGENTS THROUGHOUT THE UNITED KINGDOM.

WASTE NO OIL.

**STRONG IRON OIL CISTERNS,**  
NOT LIABLE TO LEAK, AND ECONOMISE SPACE IN THE STORES:—

Dia. Height.	10 0 0	7 5 gallons	Dia. Height.	10 0 0	7 5 gallons
100 gallons	48 x 84	9 0 0	48 x 84	9 0 0	9 0 0
200 "	48 x 84	9 0 0	48 x 84	9 0 0	9 0 0
300 "	48 x 84	9 0 0	48 x 84	9 0 0	9 0 0
400 "	48 x 84	9 0 0	48 x 84	9 0 0	9 0 0
500 "	48 x 84	9 0 0	48 x 84	9 0 0	9 0 0
600 "	48 x 84	9 0 0	48 x 84	9 0 0	9 0 0
700 "	48 x 84	9 0 0	48 x 84	9 0 0	9 0 0
800 "	48 x 84	9 0 0	48 x 84	9 0 0	9 0 0
900 "	48 x 84	9 0 0	48 x 84	9 0 0	9 0 0

2 1/2 gallons..... 4s. 6d. 3 1/2 gallons..... 5s. 6d.

WAGON GREASE, in 4 and 8 cwt. casks.

TURPENTINE SUBSTITUTE, 3s. per gallon, in 50-gallon casks.

TO IRON AND COAL MASTERS, &c.

**IMPROVED BLACK VARNISH,**  
FOR PREVENTING IRON FROM RUST, AND WOOD FROM DECAY.

A brilliant jet black, superior to paint in appearance, dries in less time, contains pre-  
servative qualities of the best description, and is economical in its use: one gallon at its  
strength will coat 14 sq. ft. of paint, which costs 4s.

For COLLIERIES, HEAD GEARING, RAILWAY WAGONS, BOILERS, CASTINGS, CANAL BOATS,  
&c., it is especially adapted. In casks containing 10, 15, and 20 cwt. each. In quan-  
tities of 1 ton and upwards, price £11 per ton.

GLOVER AND CO.,

No. 40, MANESTY LANE, LIVERPOOL.

**BASTIER'S PATENT CHAIN PUMP.**  
APPARATUS FOR RAISING WATER ECONOMICALLY, ESPECIALLY  
APPLICABLE TO ALL KINDS OF MINES, DRAINAGE, WELLS, MARINE,  
FIRE, &c.

J. U. BASTIER begs to call the attention of proprietors of mines, engineers, architects,  
armies, and the public in general, to his new pump, the cheapest and most efficient ever  
introduced to public notice. The principle of this new pump is simple and effective, and  
its action is so arranged that accidental breakage is impossible. It occupies less space  
than any other kind of pump in use, does not interfere with the working of the shafts,  
and unites lightness with a degree of durability almost imperishable. By means of this  
hydraulic machine water can be raised economically from wells of any depth; it can be  
worked either by steam-engine or any other motive power, by quick or slow motion.

The following statement presents some of the results obtained by this hydraulic machine,  
as daily demonstrated by use:—  
1.—It utilizes from 90 to 92 per cent. of the motive power.  
2.—Its price and expense of installation is 75 percent. less than the usual pumps em-  
ployed for mining purposes.  
3.—It occupies a very small space.  
4.—It raises water from any depth with the same facility and economy.  
5.—It raises with the water, and without the slightest injury to the apparatus, sand,  
mud, wood, stone, and every object of a smaller diameter than its tube.  
6.—It is easily removed, and requires no cleaning or attention.

A mining pump can be seen daily at work, at Wharfedale Colliery, South Sydenham,  
Devon, near Tavistock; and a slitting pump at Woodside Graving Dock Company  
(Limited), Birkenhead, near Liverpool.

J. U. BASTIER, sole manufacturer, will CONTRACT TO ERECT HIS PATENT PUMP  
AT HIS OWN EXPENSE, and will GUARANTEE IT FOR ONE YEAR, or the USE  
OF HIS INVENTION.

OFFICES, 63, DEAN STREET, SOHO SQUARE.

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